Rheem Australia Pty Ltd

ABN 21 098 823 511

SERVICE INSTRUCTIONS

Rheem Gas Permanent Pilot Water Heaters

TM016

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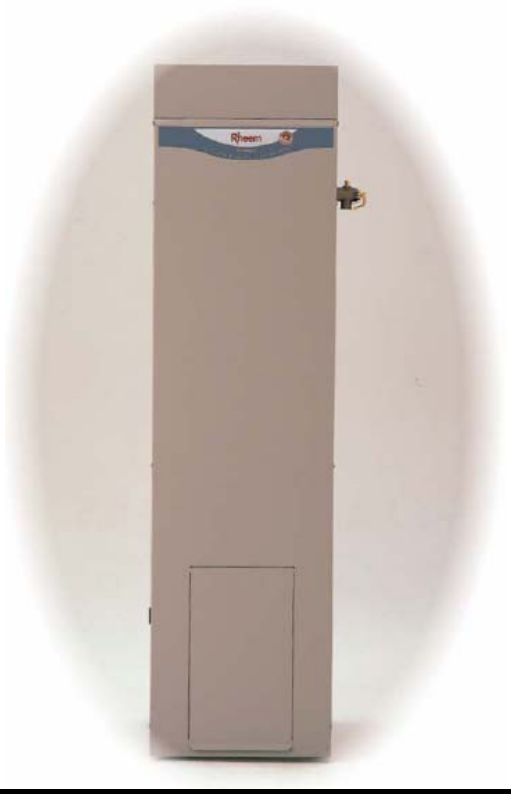

300 Series - Indoor
311 Series - Outdoor
314 Series - Rheem Plus
811 Series - Optima
620 Series - Indoor
630 Series - Outdoor

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Safety Warning

The purpose of these service instructions is to provide sufficient information to allow a person with the skills as required by the controlling Regulatory Authorities to carry out effective repairs to a Rheem Gas Water Heater in the minimum of time.

Safety precautions or areas where extra care should be observed when conducting tests outlined in this service manual are indicated by print in ***bold italics*** and/or a warning symbol. Take care to observe the recommended procedure.

When conducting repairs to a gas appliance the gas train including injector sizes must not be altered or modified in any way.

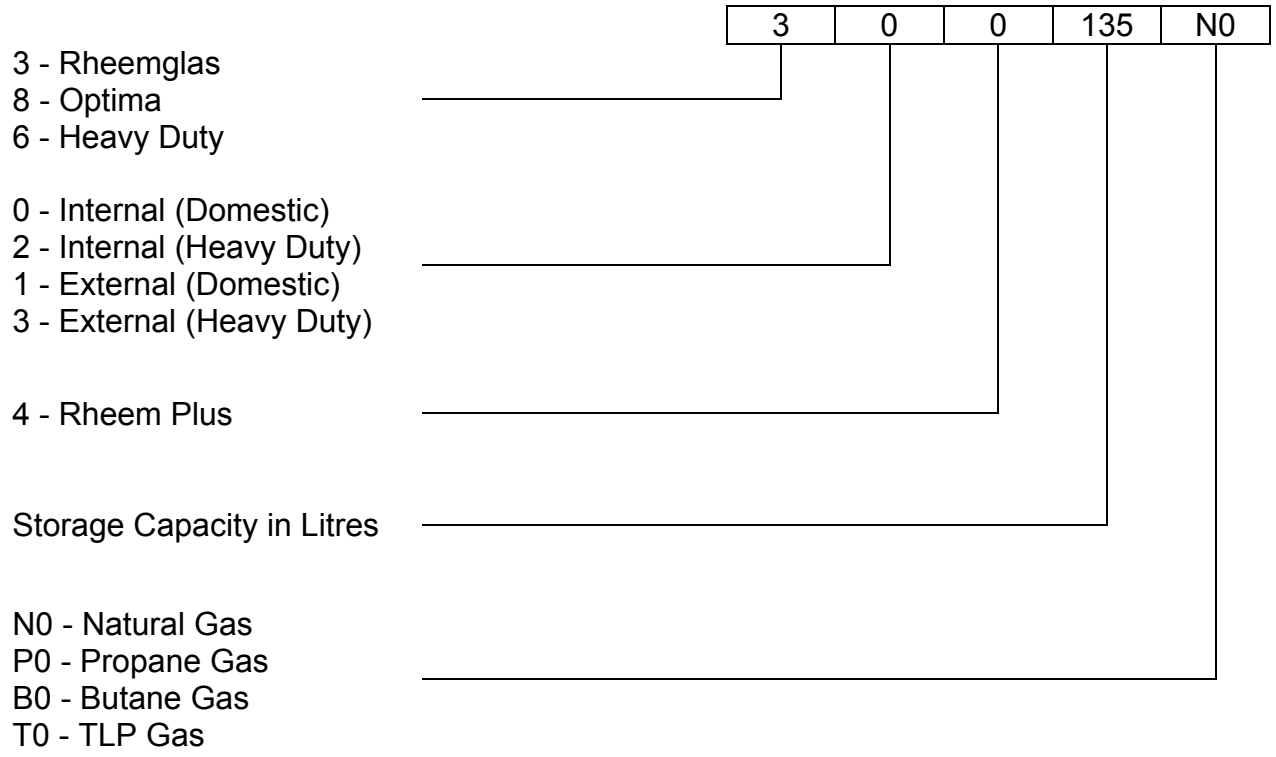
Introduction

The information provided in these service instructions is based on the water heater being installed in accordance with AS5601 and the Installation Instructions provided with each water heater.

Should you require further technical advice on a Rheem Gas Water Heater, contact your nearest Rheem Service Department where genuine replacement parts are also available.

Heater Model Identification

All identification numbers are designed to convey detailed information about the water heater to which it is attached. For example the model consists of 7 digits and 2 letters.



Note: Model number, serial number and date of manufacture must be quoted in all correspondence.

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It is suggested for peak performance that the water heater be serviced annually.

1. Check for discharge from the T & PR valve. When the burner is off there should be no discharge of water. When the burner is operating, a small discharge of water may be evident. Operate the valve easing lever to ensure the valve opens and resets properly. Always open and close the valve gently. The T&PR valve should be replaced at 5 yearly intervals.
2. Check that the pilot is burning with a small blue flame. Remove and clean the pilot burner if there is a tendency for yellowing of the flame. Ensure the pilot ignites the main burner with no delayed ignition.

   Note: Water heaters operating on LP gases may exhibit a slightly yellow pilot flame; this is a normal condition.
3. Check the main burner pressure and compare to that indicated on the rating label, a reading within 10% is acceptable. Remember to replace the pressure test point screw.
4. Check main burner flame to ensure all parts ignite readily and that the flame is blue with little or no yellowing of the tips. If necessary, adjust primary air shutter to eliminate yellowing without introducing a harsh noisy blue flame.
5. Check operation of the piezo igniter. The pilot should light after two (2) or three (3) operations of the piezo, if not, check for correct spark gap, burnt electrode or a cracked ceramic insulator.
6. Check operation of the flame failure magnetic valve. The magnetic valve should be held open within one (1) minute by the electric current generated by the thermocouple. If not check the output of the thermocouple.
7. Check for signs of excessive corrosion on the jacket and inside the combustion chamber.
8. Indoor Models Only – Clean the pilot viewing mirror.
9. Warn customer of the danger of using flammable materials or aerosol spray packs near the water heater. Aerosols and harsh chemicals can cause premature failure of water heater components.
10. For Rheem Plus models see the additional maintenance procedures in the section titled “Rheem Plus Tempering Valve Annual Service” on page 37.

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Specifications

300, 311, 314** & 811 Series		Model					
		90L		135L		170L	
		Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
Maximum Water Supply Pressure (kPa)	With ECV	960		960		960	
	Without ECV	1120		1120		1120	
Maximum Thermostat Setting (ºC)		66		66		66	
Cut Out Temperature (Water ºC)		82		82		82	
Hourly Recovery @ 45ºC Rise (Litres)		100	125	125	150	125	200
Water Connections		RP¾/20		RP¾/20		RP¾/20	
Gas Connection		RP½/15		RP½/15		RP½/15	
Thermal Input (MJ)	Butane Gas	25	30	25	30	25	30
	Natural Gas	25	30	30	35	30	40
	Propane Gas	25	30	30	35	30	40
	TLP Gas	25	27	29	32	29	38
T & PR Valve	Connection	½/15		½/15		½/15	
	Rating (kPa)	1400		1400		1400	
Anodes	Quantity	1		1	*	1	*
	Length (mm)	695		1100		1400	
Flue Baffle	Blades	10	11	14	15	16	19
	Length (mm)	845	885	1140	1205	1440	1525

***** 311 & 314 series – 1 Anode. 811 series – 2 anodes
**314 series available in 135L & 170L outdoor models only

620 & 630 Series		Model			
		130L		260L	
		Indoor	Outdoor	Indoor	Outdoor
Maximum Water Supply Pressure (kPa)	With ECV	960		680	
	Without ECV	1120		800	
Maximum Thermostat Setting (ºC)		80		66	
Cut Out Temperature (Water ºC)		90		82	
Hourly Recovery @ 40ºC Rise (Litres)		145		236	
Water Connections		RP¾/20		RP1¼/32	
Gas Connection		RP½/15		RP½/15	
Thermal Input (MJ)	Butane Gas	NA	NA	39	39
	Natural Gas	30	35	50	50
	Propane Gas	30	35	47	47
	TLP Gas	-	-	40	40
T & PR Valve	Connection	RP½/15		RP¾ /20	
	Rating (kPa)	1400		1000	
Anodes	Quantity	1		2	
	Length (mm)	1153		1100	
Flue Baffle	Blades	14	15	8	7
	Length (mm)	1140	1205	1100	1100

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Gas Specifications

		300, 311, 314* & 811 Series					
		90		135		170	
		Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
Butane Gas	Min Gas Pressure (kPa)	2.75					
	Max Gas Pressure (kPa)	3.50					
	Pilot Injector (mm)	0.18					
	Main Injector (mm)	1.30	1.40	1.30	1.40	1.30	1.40
	Burner Pressure (kPa)	2.70					
Natural Gas	Min Gas Pressure (kPa)	1.13					
	Max Gas Pressure (kPa)	3.50					
	Pilot Injector (mm)	0.27					
	Main Injector (mm)	2.25	2.45	2.45	2.60	2.45	2.80
	Burner Pressure (kPa)	1.00					
Propane Gas	Min Gas Pressure (kPa)	2.75					
	Max Gas Pressure (kPa)	3.50					
	Pilot Injector (mm)	0.18					
	Main Injector (mm)	1.35	1.50	1.50	1.65	1.50	1.70
	Burner Pressure (kPa)	2.70					
TLP Gas	Min Gas Pressure (kPa)	0.75					
	Max Gas Pressure (kPa)	3.50					
	Pilot Injector (mm)	0.40					
	Main Injector (mm)	3.80	4.00	4.20	4.50	4.20	5.60
	Burner Pressure (kPa)	0.47	0.45	0.44	0.40	0.44	0.42

*314 series available in 135L & 170L outdoor models only

		620 - 630 Series			
		130		260	
		Indoor	Outdoor	Indoor	Outdoor
Butane Gas	Min Gas Pressure (kPa)	Not Manufactured		2.75	
	Max Gas Pressure (kPa)			3.50	
	Pilot Injector (mm)			0.18	
	Main Injector (mm)			1.60	1.60
	Burner Pressure (kPa)			2.70	
Natural Gas	Min Gas Pressure (kPa)	1.13			
	Max Gas Pressure (kPa)	3.50			
	Pilot Injector (mm)	0.27			
	Main Injector (mm)	2.45	2.60	3.20	3.20
	Burner Pressure (kPa)	1.00			
Propane Gas	Min Gas Pressure (kPa)	2.75			
	Max Gas Pressure (kPa)	3.50			
	Pilot Injector (mm)	0.18			
	Main Injector (mm)	1.50	1.65	1.90	1.90
	Burner Pressure (kPa)	2.70			
TLP Gas	Min Gas Pressure (kPa)	Not Manufactured		0.75	
	Max Gas Pressure (kPa)			3.50	
	Pilot Injector (mm)			0.40	
	Main Injector (mm)			5.80	5.80
	Burner Pressure (kPa)			0.42	0.42

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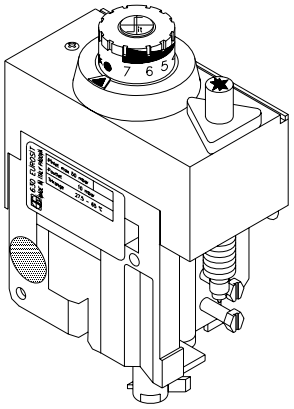
Lighting Instructions

Eurosit Gas Control (Old Style)



1. ***Ensure the gas control knob is in the "●" position (the off position).***

2. ***Wait five (5) minutes so any build up of gas can escape.***

3. Depress and turn the gas control knob to the "✱" position (the pilot position).

4. Depress the knob fully (until the "✱" disappears below the housing) and after thirty (30) seconds, whilst keeping the gas control knob depressed, press the igniter button several times to ignite the pilot flame.

Keep face clear of the combustion chamber opening while pressing the igniter.

5. Keep the knob depressed for twenty (20) seconds after the pilot flame lights.

6. Release the gas control knob and check if the pilot is still alight. The pilot can be checked by looking through the large opening below the gas control.

7. If the pilot has failed to light or has not remained alight, turn the gas control knob to the "●" position (off position). ***Wait five (5) minutes for the escape of unburnt gas,*** then begin again at step 3.

8. When the pilot flame remains alight with the gas control knob released, slightly depress the gas control knob and turn it anticlockwise to one of the numbered settings. A setting of "6" is recommended; this will give a water temperature of about 60ºC.

9. Turn the gas control knob to a higher number for higher water temperatures or to a lower number for lower water temperatures.

10. Replace the access cover (External models only).

11. If the main burner does not light at the selected setting, the water may already be at the selected temperature.

NEVER press the igniter button when the gas control knob is not in the "✱" position (pilot position).

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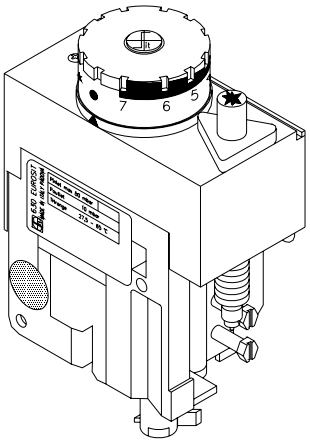
Eurosit Gas Control (New Style)



1. ***Ensure the gas control knob is in the "●" position (the off position).***
2. ***Wait five (5) minutes so any build up of gas can escape.***
3. Turn the gas control knob to the "✱" position (the pilot position).
4. Depress the knob fully (until the ✱"" disappears below the housing) and after thirty (30) seconds, whilst keeping the gas control knob depressed, press the igniter button several times to ignite the pilot flame.

Keep face clear of the combustion chamber opening while pressing the igniter.

Note: It is not possible to depress the knob fully if the gas control has activated its safety shut off feature. In this case wait 60 seconds for the gas control to reset.

5. Keep the knob depressed for twenty (20) seconds after the pilot flame lights.
6. Release the gas control knob and check if the pilot is still alight. The pilot can be checked by looking through the large opening below the gas control.
7. If the pilot has failed to light or has not remained alight, turn the gas control knob to the "●" position (off position). ***Wait five (5) minutes for the escape of unburnt gas,*** then begin again at step 3.
8. When the pilot flame remains alight with the gas control knob released, slightly depress the gas control knob and turn it anticlockwise to one of the numbered settings. A setting of "6" is recommended; this will give a water temperature of about 60ºC.
9. Turn the gas control knob to a higher number for higher water temperatures or to a lower number for lower water temperatures.
10. Replace the access cover.
11. If the main burner does not light at the selected setting, the water may already be at the selected temperature.

NEVER press the igniter button when the gas control knob is not in the "✱" position (pilot position).

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Operation

When the gas control knob is depressed in the pilot position, it allows gas to flow to the pilot head where it can be ignited by a spark from the piezo igniter.

The pilot flame heats the thermocouple, which creates an electrical current to energise the magnetic safety valve. This electrical current holds the magnetic valve in the open position when the gas control knob is released allowing the pilot to remain alight.

Once the pilot flame is established the gas control knob can then be rotated anti-clockwise, by depressing slightly, allowing gas to the main burner. The main burner is lit via a cross light action between the pilot flame and the gas emanating from the main burner.

Position 7 on the gas control will heat water to approximately 66ºC or 80°C (620130 & 630130 models only). Each number on the gas control represents a water temperature change of approximately 6ºC.

The water temperature is maintained by means of a liquid contained in the sensing bulb expanding and contracting in the capillary tube and operating a bellows located in the gas control body.

As the water temperature increases the bellows expands and acts on the valve seat by means of a lever. When the required temperature is reached the main gas way is closed and the main burner is extinguished.

Components and their Function

Anode (Sacrificial)

A metal alloy electrode, which by galvanic action protects the inner cylinder from corrosion.

Temperature and Pressure Relief Valve (T&PR)

A valve designed to provide automatic relief by discharging water in case of excessive temperature, pressure or both.

Never fit a T&PR valve with a pressure rating greater than that indicated on the water heater rating label.

Delivery Tube (Dip Tube)

A polypropylene tube fitted in the outlet of the water heater to conduct water from the highest point to the outlet connection. It also acts as a fitting liner to prevent corrosion.

Inlet Diffuser

A device installed in the cold water inlet of the water heater to help control temperature stratification within the cylinder.

Flue Baffle

A baffle inserted into the water heater flue tube that slows the passage of flue gases to ensure maximum heat transfer to the stored water.

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Tempering Valve – Rheem Plus Models

A non adjustable valve that mixes hot and cold water to provide an outlet water temperature of 48ºC +/- 1.5ºC.

Cold Water connector – Rheem Plus models

A three way fitting which the plumber connects the cold water supply to. This fitting then diverts water to both the storage cylinder and to the cold water inlet of the tempering valve.

Eurosit 630 Gas Control

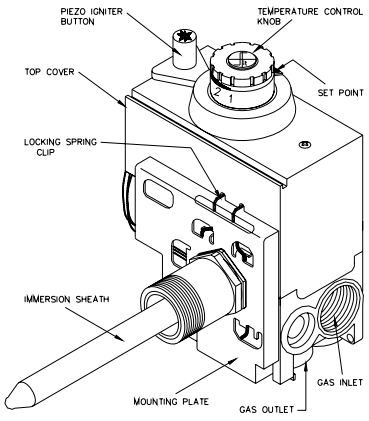
The gas control is a multi-functional single knob gas control. It is gas type specific, designed for Natural, Propane or TLP Gases. ***The control is factory set and not field serviceable or gas type convertible.***

The gas control is manufactured without the temperature probe and Over Temperature Switch (ECO) enclosed in a sheath.

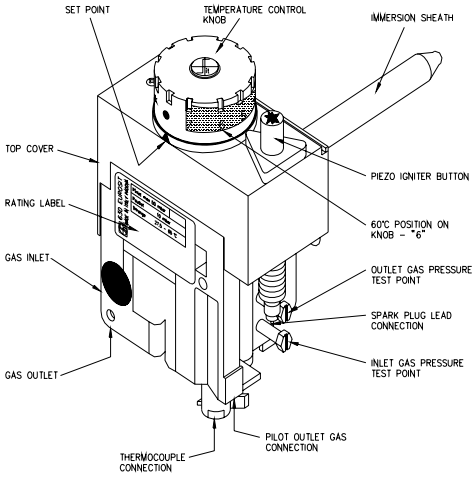
The sheath (called an adapter) is a separate item and is screwed into the cylinder during manufacture. A slot in the head of the adapter is aligned in the horizontal position to allow the snap on bracket at the rear of the gas control to be located positively. This design allows the gas control to be replaced without the need to drain the water heater.

Note: The only time the adapter needs to be removed is in the event of a leak developing at the cylinder connection or in the adapter itself. ***In either case the water supply must be isolated and pressure relieved from the cylinder prior to removal or replacement.***

In the event of an adapter replacement, use a 27mm socket to prevent damage to the slot. Apply thread-sealing tape and tighten so that the slot is horizontal with a minimum of 2 threads or a maximum of 4 threads protruding from the cylinder fitting.



Eurosit Gas Control (Old Style)



Eurosit Gas Control (New Style)

Over Temperature Energy Cut Out (ECO)

A temperature-sensing device in combination with the gas control, that automatically cuts off the supply of gas to prevent excessive water temperature occurring. This device will reset automatically once temperatures have fallen to a safe level, allowing the pilot to be relit. ***The cause of operation must be determined.***

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Magnetic Valve

A solenoid type gas isolating valve held in the open position by a small electric current generated by the thermocouple. This valve will completely isolate the supply of gas to the burner and pilot in the event of a pilot flame failure.

Thermal Switch

A one-shot safety device mounted in the thermocouple near the gas control that senses excessive heat outside the combustion chamber. ***This device cannot be reset and must not be bypassed***.

Thermocouple

A device that generates a small electric current when heated. Thermocouples are available in TS (thermal switch) and Non-TS types. The current generated by the thermocouple is used to hold a magnetic valve, fitted in the gas control, open.

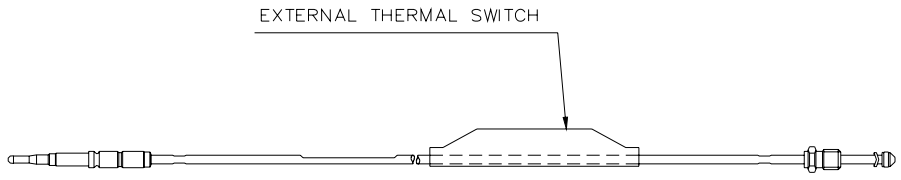
The pilot assembly is designed to ensure that a Non-TS thermocouple cannot be substituted in place of a TS thermocouple during replacement.

The use of a TS thermocouple is to provide a safety shutdown in the event of a blockage in the combustion chamber or flue.

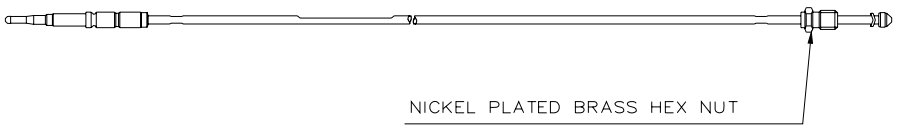
IMPORTANT: If replacing an open circuit TS thermocouple it is essential to investigate the cause of failure. Possible causes include: incorrect installation of the water heater i.e. incorrect distance from corners or walls; reverse fluing; exhaust fans or air conditioners near by etc.

The original TS thermocouple had the thermal fuse mounted externally on the outer sheath of the thermocouple (see diagram below), the current style of TS thermocouple has the thermal fuse integrated inside the outer sheath. A nickel coloured nut at the gas control end of the thermocouple identifies this type of TS thermocouple. Non-TS thermocouples have a brass coloured nut.

Original TS thermocouple



Current TS thermocouple



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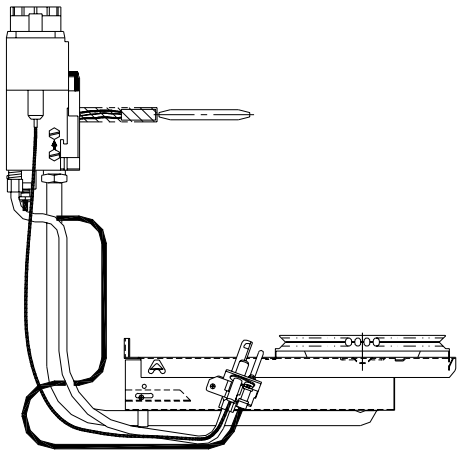
Main burner assembly

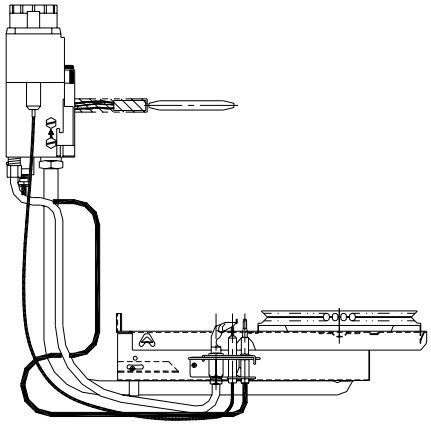
Gas storage water heaters have been manufactured with two (2) types of main burner assembly. The original production featured a Eurosit gas control with a 2BL Robertshaw pilot assembly (refer to figure 1). Current production features a Eurosit gas control with a S.I.T pilot assembly (refer to figure 2).

Figure 1



Eurosit gas control with 2 BL pilot manufactured from inception to the end of March 2000

Figure 2



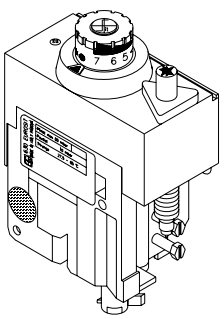
Eurosit gas control with S.I.T pilot manufactured from April 2000 onwards

Gas Control

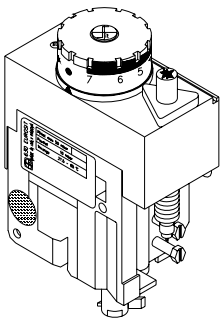
As from January 2001 a new generation of Eurosit gas control was introduced to production.

The new gas control features a mechanical interlock between the pilot and main burner position and, on Natural Gas types, an internal regulated pilot gas supply. The interlock gas control can be identified by a larger control knob.

The Eurosit Gas Control with interlock will now be the only type supplied as a replacement from spare parts for all gas types.



Old Style



New Style

NOTE:
When replacing a non interlock Eurosit gas control (small knob) with an interlocked version (Large knob) it will be necessary to replace the lighting instructions in addition to fitting the gas control:

The replacement lighting instructions are designed for placement over the existing lighting instructions.

Lighting Instructions	121049 - Indoor 121048 - Outdoor

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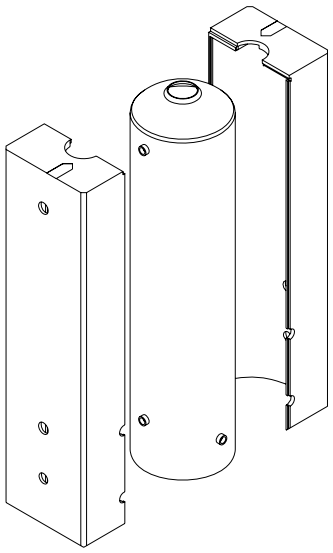
Insulation

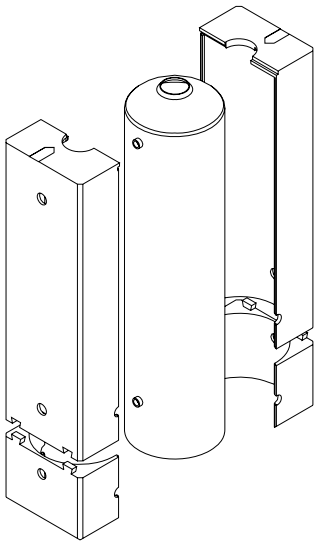
During 2001 the insulation material used in domestic outdoor gas water heaters was changed from a wool glass blanket wrapped around the cylinder to moulded styrene. The moulded styrene is fitted around the cylinder in two (2) halves on 90L and 135L models and in four (4) sections on the 170L models (see diagrams opposite).

The change to styrene insulation occurred from the following dates:
90L – 4/5/01
135L – 1/5/01
170L – 1/8/01

90L and 135L models



170L models



Thermocouple

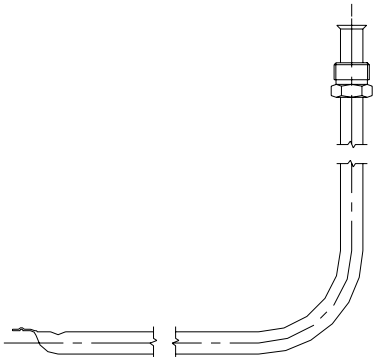
With the introduction of styrene insulation the Non-TS thermocouple fitted to outdoor models was replaced by a TS thermocouple. The pilot bracket is designed to prevent the fitting of a Non-TS thermocouple in place of a TS thermocouple. Refer to page 11 for thermocouple identification details.

Gas connection (Outdoor models only)

In April 2000 the gas control was repositioned closer to the cylinder and the opening for the gas supply pipe relocated in the side panel to allow a straight connection for the gas supply pipe to the gas control.

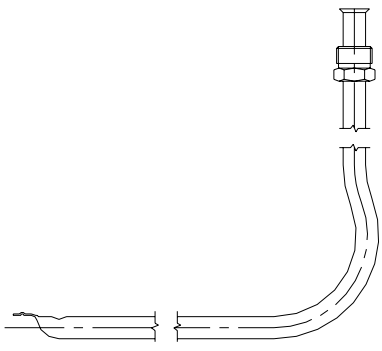
These alterations required a change to the burner feed pipe (see diagrams below). Indoor and Outdoor models produced before April 2000 both used a straight burner feed pipe. Outdoor models produced from April 2000 on utilise an offset burner feed pipe, indoor models continue to use the original burner feed pipe.

Burner Feed Pipe (Up to April 2000)



Part No. 070800 - LP & Butane Gas
070801 - Natural & TLP Gas

Burner Feed Pipe (April 2000 on)



Part No. 070858 - LP & Butane Gas
070859 - Natural & TLP Gas

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Common Faults

When a complaint is lodged about the performance of a hot water system there are a number of causes that should be checked and eliminated. In an attempt to pinpoint the most likely cause it is important to discuss with the customer their reasons for the complaint, the duration of the problem, any change in circumstances or usage and recent weather conditions. This information in conjunction with the following listed common complaints will assist in locating the most likely cause. All procedures assume there is water flowing through the water heater.

Excessive hot water usage

The complaints of insufficient hot water and no hot water can on many occasions be attributed to hot water usage exceeding the capacity of the water heater to provide hot water.

When first attending a call of this nature it is essential to establish the probable hot water usage by querying the usage habits of the household and compare this with the potential delivery of the model water heater installed. It can then be established if the usage is within or outside the capacity of the model. The areas to consider for excessive usage are:

1. Automatic washing machines.
2. Showers exceeding 11 litres/minute for mixed water and 5 minutes duration.
3. Two or more showers operating at the same time.
4. Change of occupancy or number of persons increased.
5. High water pressure area causing excessive T&PR discharge.
6. Plumbing leaks.

Water hammer

A water heater will not cause water hammer, however valves associated with the water heater may be the source of the problem i.e. cold water stopcock, non-return valve, T&PR valve or relief valve.

Most water hammer problems are associated with plumbing, hot and cold, or appliances i.e. solenoid valves, ball cocks, loose pipes, sharp angles in pipe work, faulty or worn valve parts or neighbouring equipment.

High water pressure areas will have more complaints of this nature. The use of a pressure-limiting valve (PLV) to reduce the household water pressure will usually solve most problems.

Hot water plumbing leaks

If hot water has not been used for a period of time, feeling the temperature of the hot water line may give an indication of water flow if the pipe is warm. The method of checking for plumbing leaks is:

1. Turn off the stopcock on the cold water supply to the water heater.
2. Open a hot tap to ensure the flow of water stops. This will confirm the stopcock is operating correctly.
3. Turn off the hot tap.
4. Turn on the stopcock to make up the water pressure in the cylinder and then turn the stopcock off again.
5. Wait approximately five (5) minutes and then do either of the following:
   a. With your ear close to the stopcock, turn it on slightly and listen for any water passing. If there are no leaks water should not pass.
   b. Open a hot tap while listening for any pressure release. If there is a pressure release there will be no leaks in the plumbing system.

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Mixed or crossed plumbing connections

If an automatic dishwasher, washing machine, flick mixer tap, tempering valve or thermostatic mixing valve is installed there is always the possibility that the cold water could mix with the hot water through a faulty or incorrectly installed valve. This is referred to as a crossed connection. The complaints of insufficient hot water, water too cold or excessive discharge from the T&PR valve may be attributed to a cross connection. The method of checking for a cross connection is:

1. Turn off the stopcock on the cold water supply to the water heater.
2. Open a hot tap. If water flow is persistent and cold, a cross connection exists.

Discoloured water

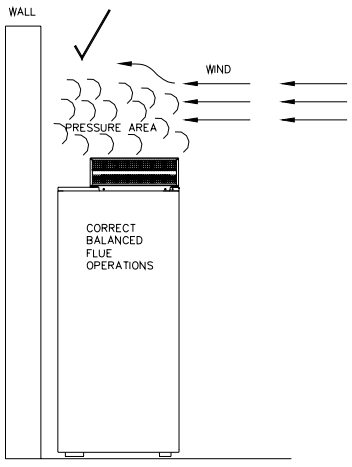
1. This may be the result of discoloured water entering from the cold water mains. Check if the cold water is also discoloured.
2. Brown coloured water will generally indicate that the anode has been depleted or the water heater is near the end of its useful life.
3. Milky coloured water is generally air in suspension and will disperse of its own accord. In very hard water areas where anode gassing occurs, milky water may be evident. The use of a blue anode should overcome this problem.

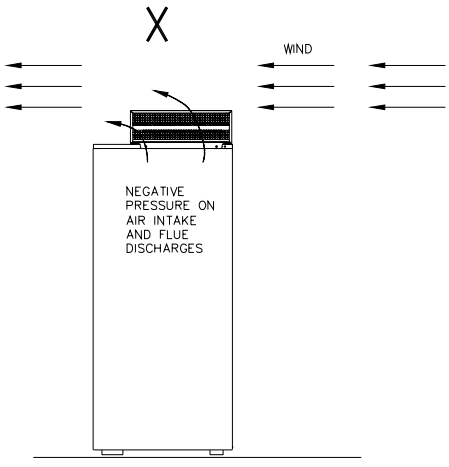
Fluing Principals

One of the major problems associated with all gas burning water heaters is poor fluing. Many installers are unaware of the principals involved with balanced flue terminals or the pressures that can be created at roof level around a flue cowl.

Balanced flue terminals (Outdoor models)

In practice it is almost impossible to achieve exact balance between the pressure on the air inlet and flue outlet of a balanced flue terminal. In order to avoid the possibility of reverse fluing the flue terminal design is always biased to provide slightly higher pressure on the air inlet. The flue terminal on outdoor water heaters has the air inlet towards the rear. When the water heater is installed against an external wall, the pressure zone created by any wind will produce the required pressure balance for the flue terminal to operate correctly. If the water heater is not installed against a wall, the pressures at the air inlet and flue outlet become unpredictable, resulting in the combustion system not operating correctly. Specifically, there may be flame roll out from the combustion chamber, flame lift off from the burner, sooting of the primary flue and flue terminal and/or flame failure problems. Below are 2 examples of the correct and incorrect installation of an outdoor water heater.





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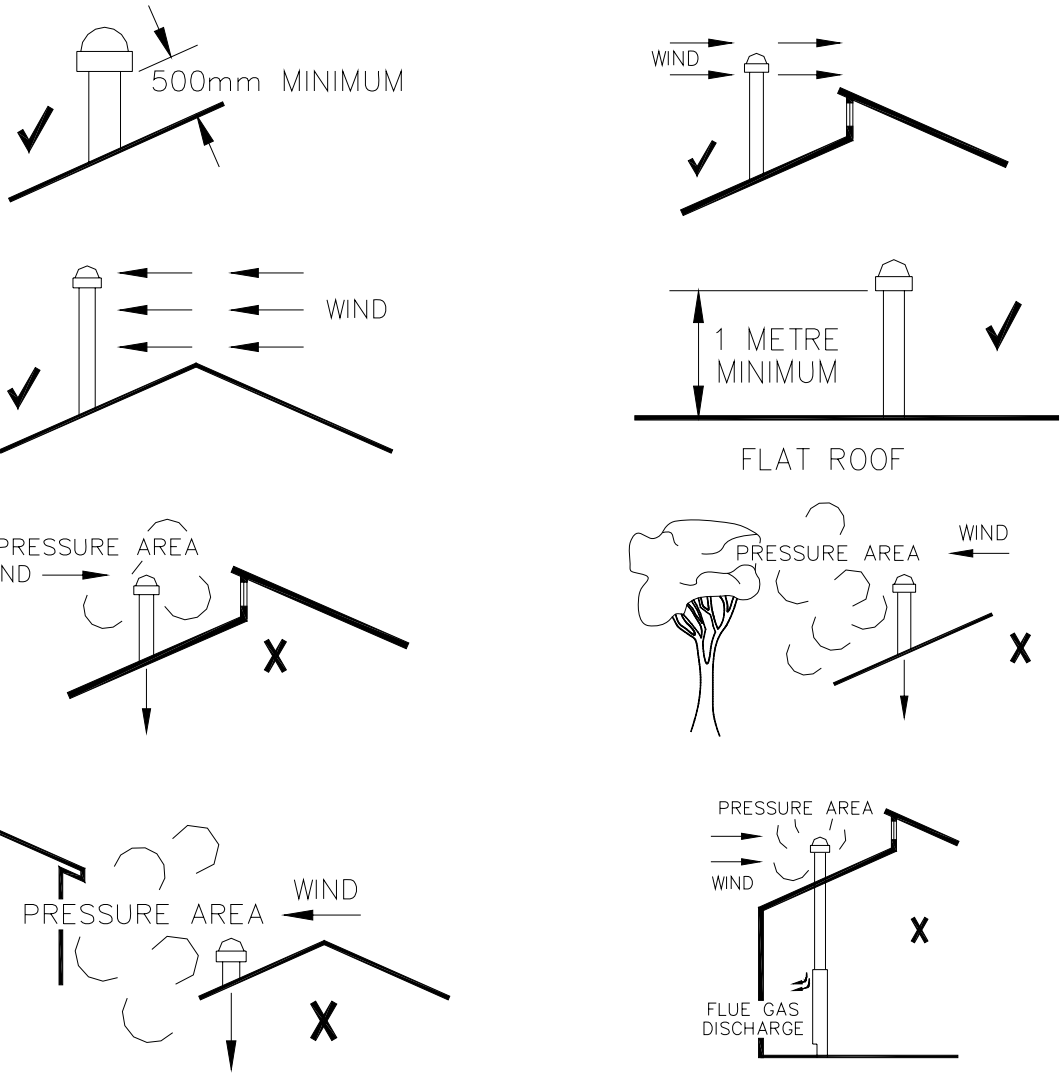
Conventional fluing (Indoor models)

Below are some examples of the correct and incorrect positions for flue cowls to terminate at roof level. Where the flue cowl terminates in a pressurized zone, a severe down draught can be excerpted during windy conditions. This down draught can result in flame roll out from the combustion chamber, sooting of the primary flue and/or flame failure problems.



Fault Finding Chart Index

Fault		Chart Number	Page
No hot water	Pilot fault	1, 1.1, 1.2	18, 20, 21
	Main burner fault	2	22
Leaking water heater		3, 3.1	24
Insufficient hot water		4	25
		4.1	26
		4.2	26
Water too hot	General	5	27
	Stacking	5.1, 5.2	28
Noisy water heater		6	29
Intermittent operation		7	30

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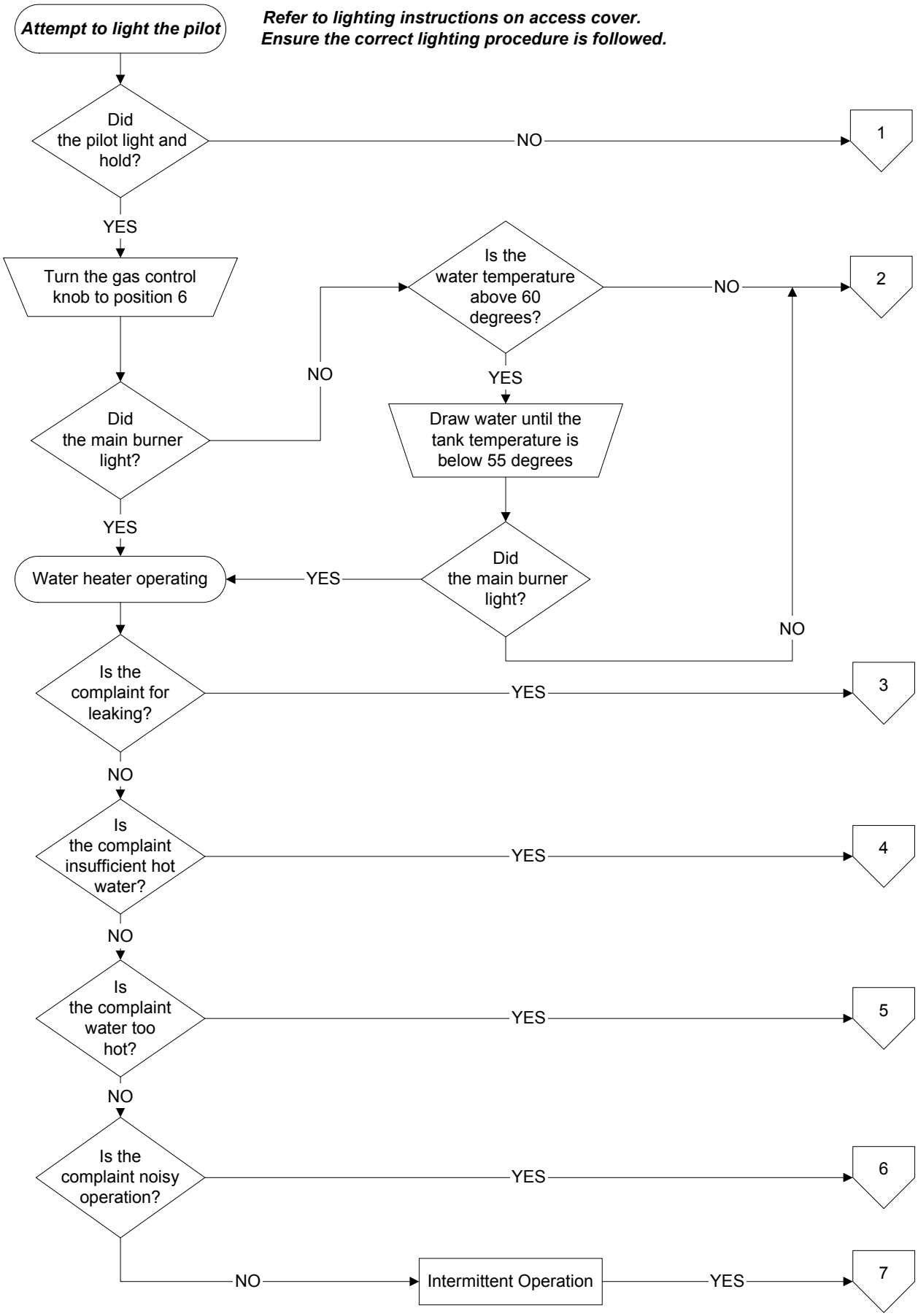
General Fault Finding chart



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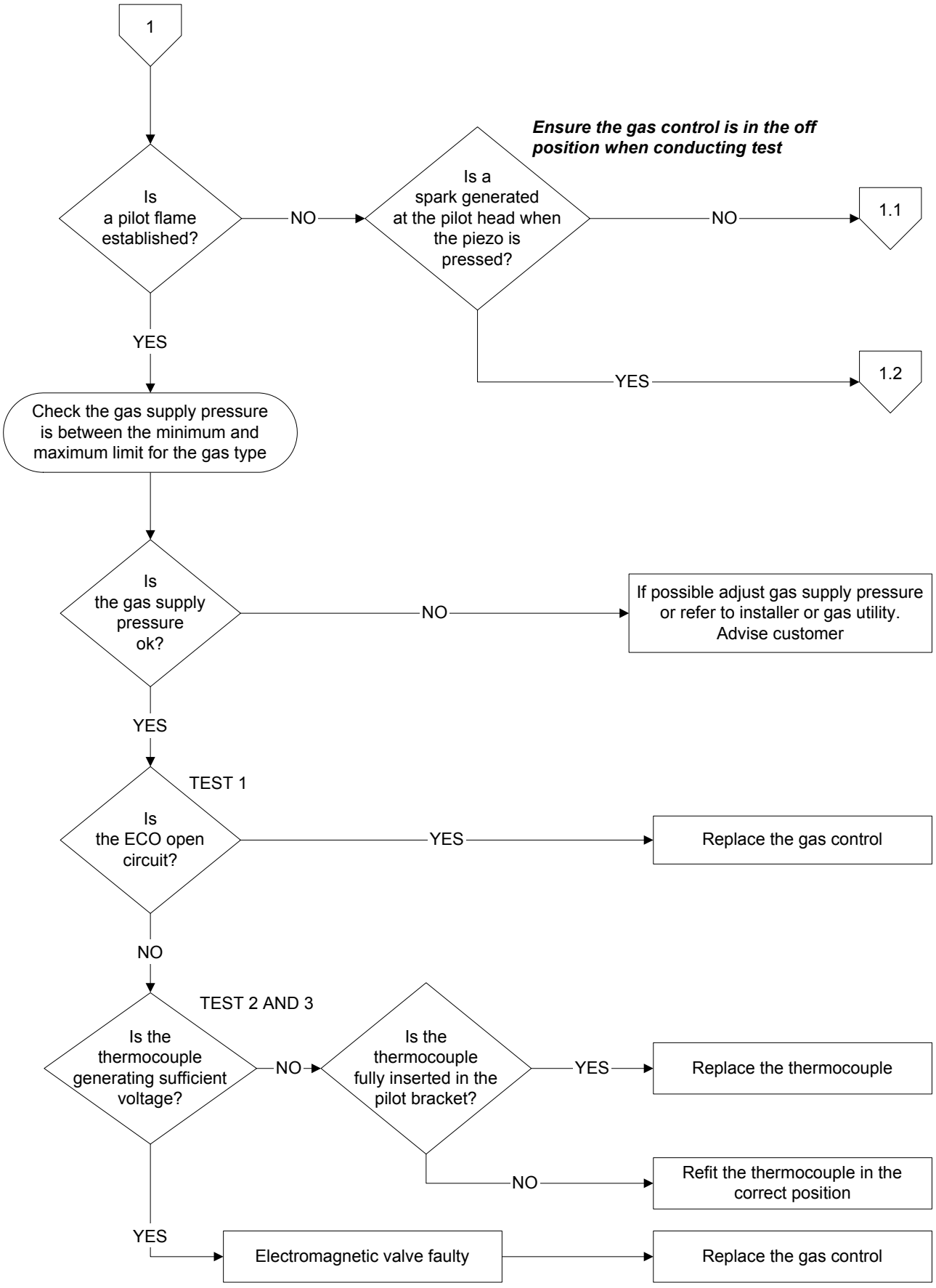
Fault Finding Chart 1


1
Is a pilot flame established?
NO
Is a spark generated at the pilot head when the piezo is pressed?
Ensure the gas control is in the off position when conducting test
NO
1.1
YES
YES
1.2
Check the gas supply pressure is between the minimum and maximum limit for the gas type
Is the gas supply pressure ok?
NO
If possible adjust gas supply pressure or refer to installer or gas utility. Advise customer
YES
TEST 1
Is the ECO open circuit?
YES
Replace the gas control
NO
TEST 2 AND 3
Is the thermocouple generating sufficient voltage?
NO
Is the thermocouple fully inserted in the pilot bracket?
YES
Replace the thermocouple
NO
Refit the thermocouple in the correct position
YES
Electromagnetic valve faulty
Replace the gas control

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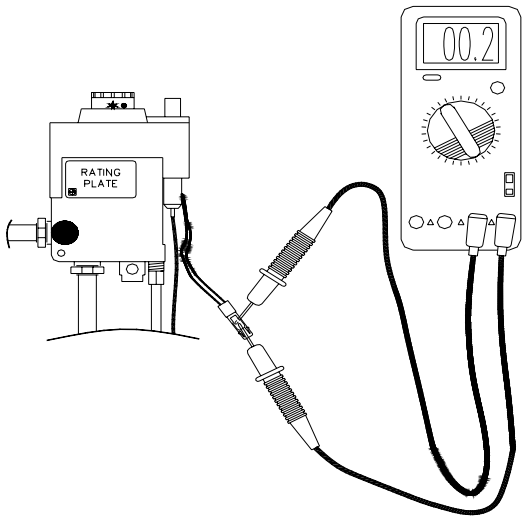
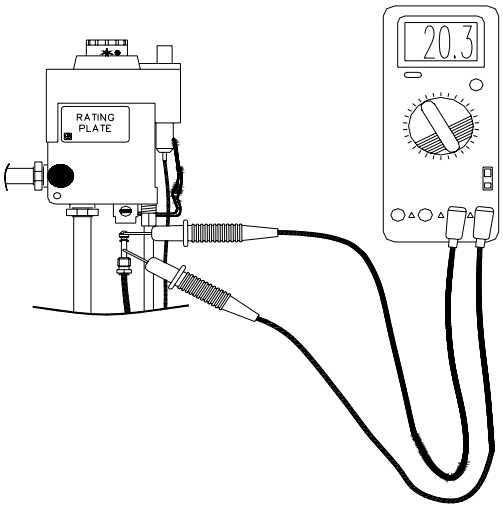
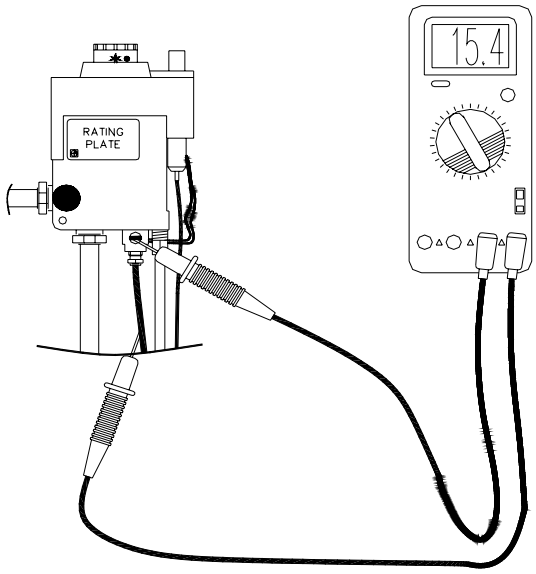
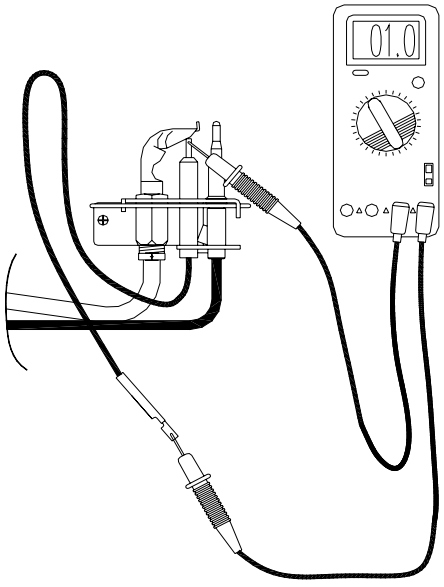
Component tests 1 – 4

TEST 1	TEST 2
	
Using a multimeter set on the x1 resistance scale measure across the terminals of the interrupter block on the gas control. The reading should be less than 1 ohm.	Disconnect the thermocouple from the gas control and using a multimeter on the DC millivolt scale measure the voltage being generated by the thermocouple. Normal voltage should be approximately 20mV. Note: It will be necessary to hold the gas control knob down to maintain pilot flame during this test.

TEST 3	TEST 4
	
With the thermocouple connected to the gas control and using a multimeter set on the DC millivolt scale, measure the voltage between the lower terminal of the interrupter block and the thermocouple sheath. The reading should be approximately 14mV.	Using a multimeter set on the x1 resistance scale, measure the resistance between the wiring terminal and the electrode tip (ensure tip is clean). Resistance should be less than 1 ohm.

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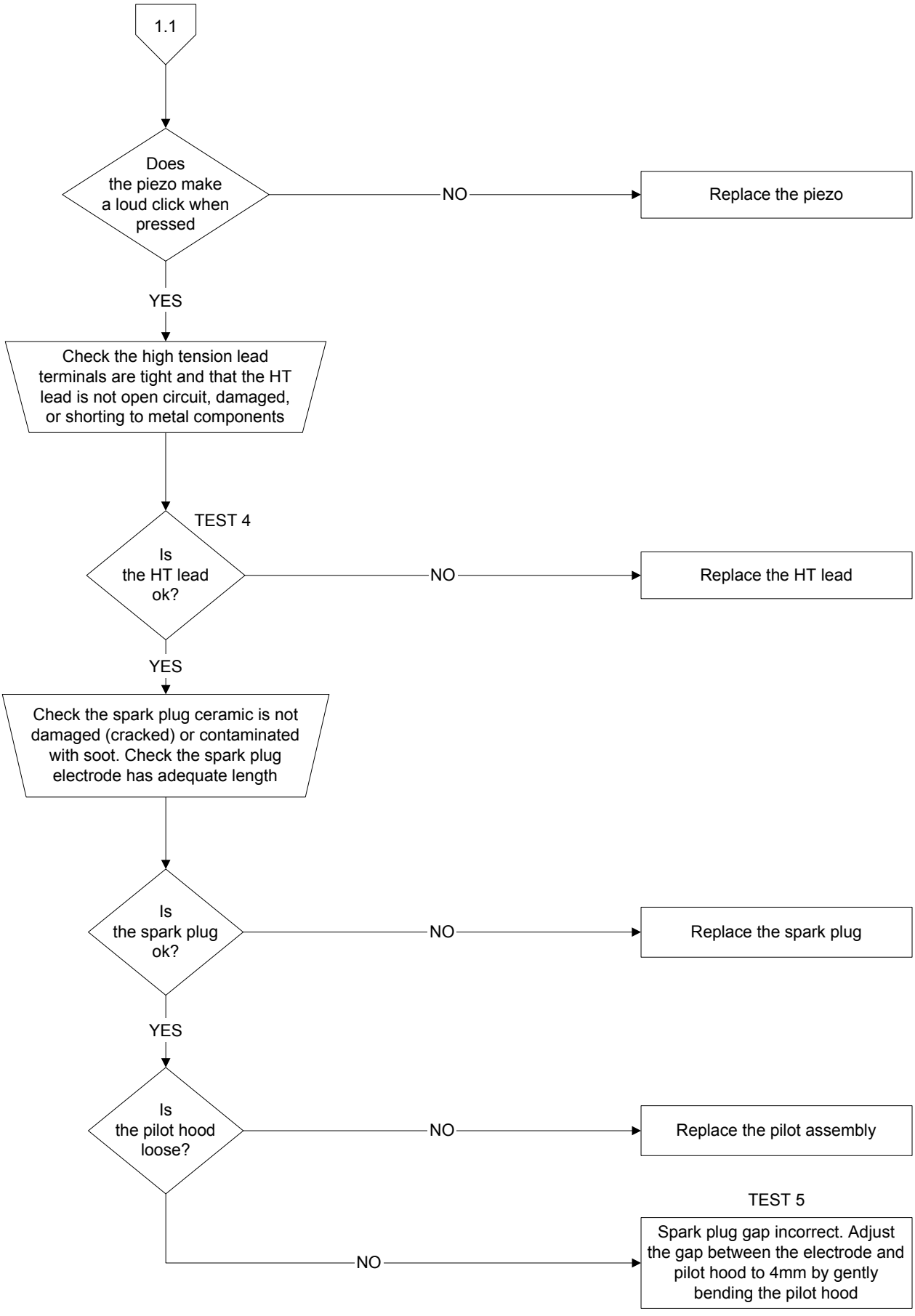
Fault Finding Chart 1.1


1.1
Does the piezo make a loud click when pressed
NO
Replace the piezo
YES
Check the high tension lead terminals are tight and that the HT lead is not open circuit, damaged, or shorting to metal components
TEST 4
Is the HT lead ok?
NO
Replace the HT lead
YES
Check the spark plug ceramic is not damaged (cracked) or contaminated with soot. Check the spark plug electrode has adequate length
Is the spark plug ok?
NO
Replace the spark plug
YES
Is the pilot hood loose?
NO
Replace the pilot assembly
TEST 5
NO
Spark plug gap incorrect. Adjust the gap between the electrode and pilot hood to 4mm by gently bending the pilot hood

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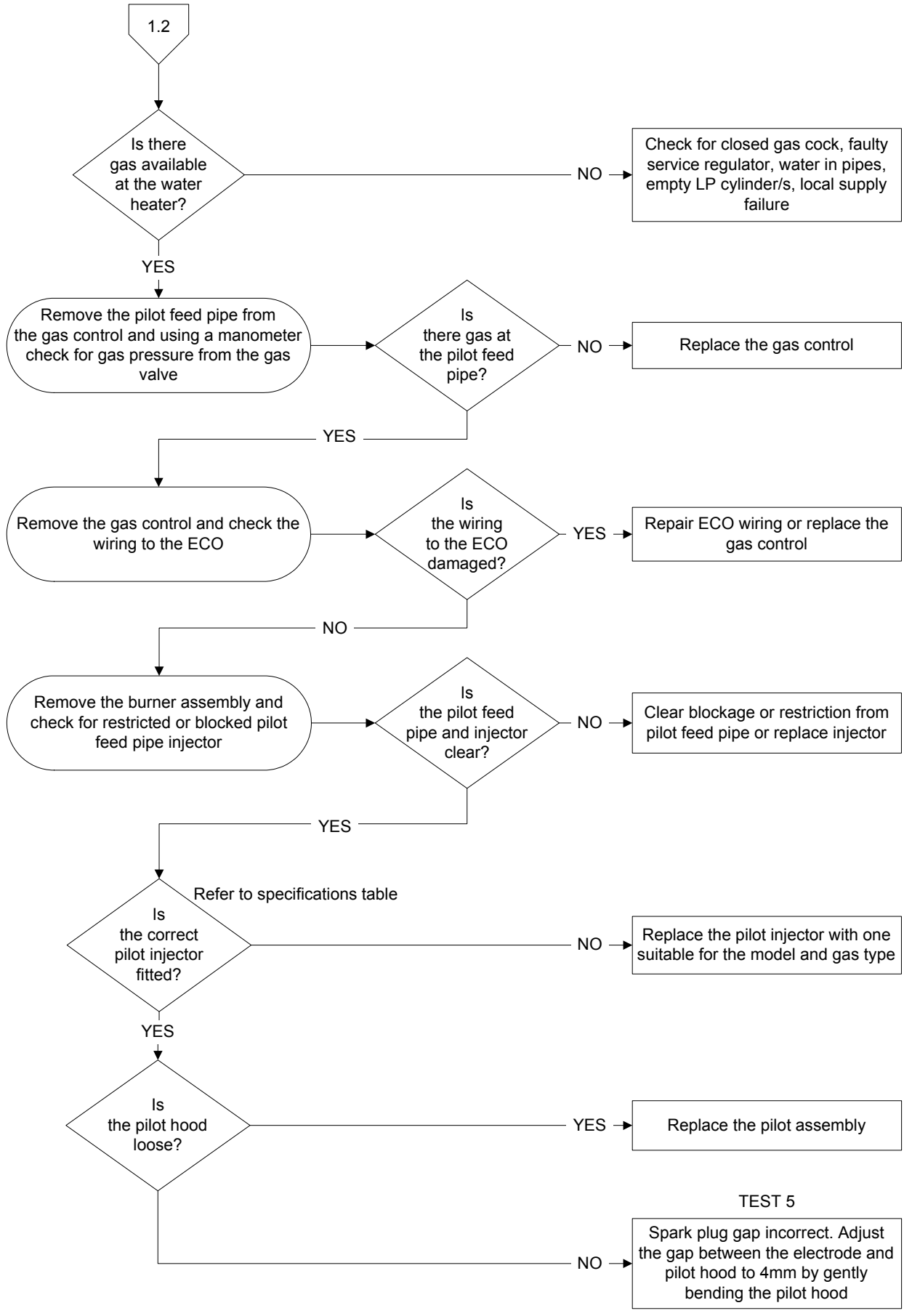
Fault Finding Chart 1.2


1.2
Is there gas available at the water heater?
NO
Check for closed gas cock, faulty service regulator, water in pipes, empty LP cylinder/s, local supply failure
YES
Remove the pilot feed pipe from the gas control and using a manometer check for gas pressure from the gas valve
Is there gas at the pilot feed pipe?
NO
Replace the gas control
YES
Remove the gas control and check the wiring to the ECO
Is the wiring to the ECO damaged?
YES
Repair ECO wiring or replace the gas control
NO
Remove the burner assembly and check for restricted or blocked pilot feed pipe injector
Is the pilot feed pipe and injector clear?
NO
Clear blockage or restriction from pilot feed pipe or replace injector
YES
Refer to specifications table
Is the correct pilot injector fitted?
NO
Replace the pilot injector with one suitable for the model and gas type
YES
Is the pilot hood loose?
YES
Replace the pilot assembly
TEST 5
NO
Spark plug gap incorrect. Adjust the gap between the electrode and pilot hood to 4mm by gently bending the pilot hood

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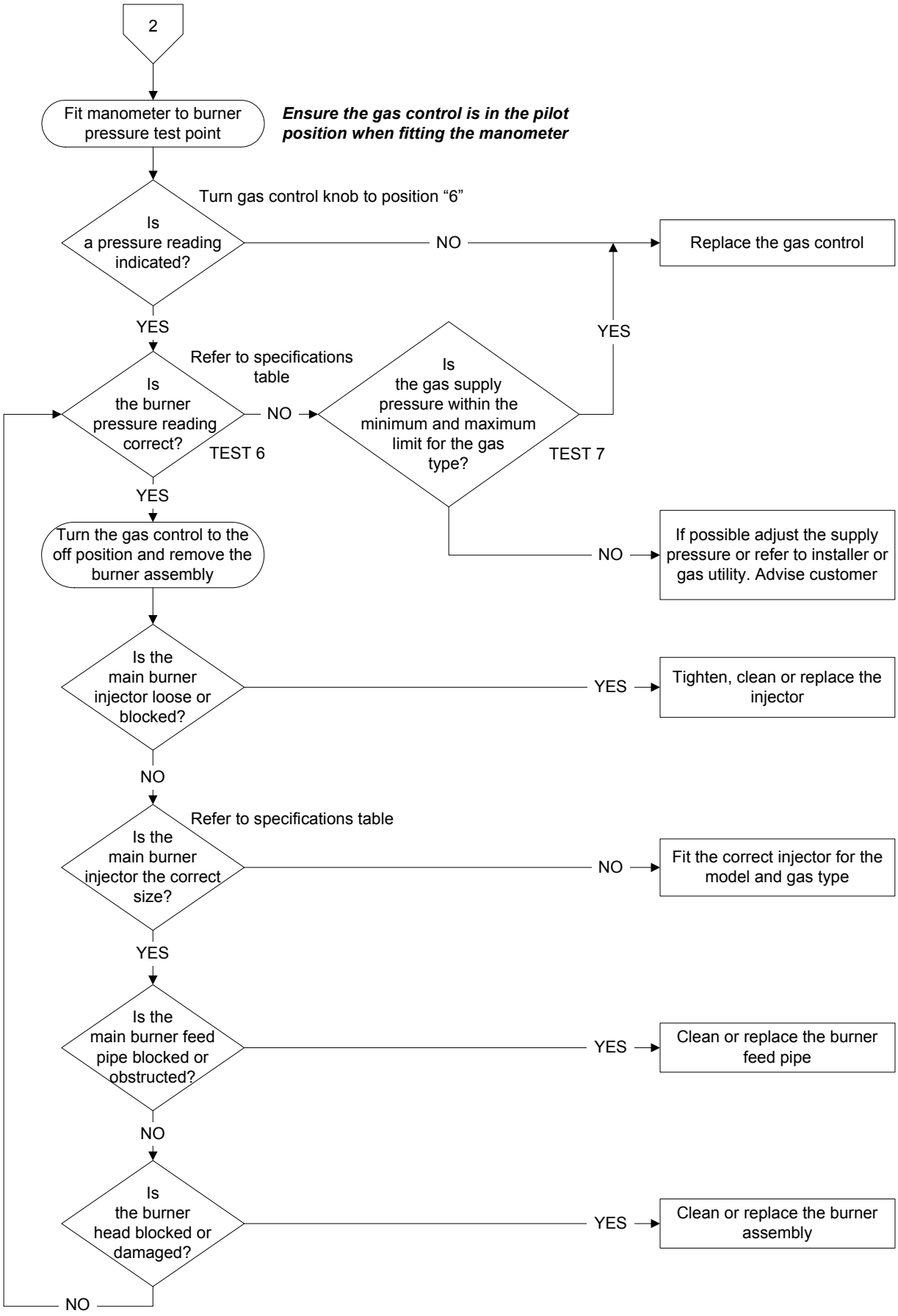
Fault Finding Chart 2


2
Fit manometer to burner pressure test point
Ensure the gas control is in the pilot position when fitting the manometer
Turn gas control knob to position “6”
Is a pressure reading indicated?
NO
Replace the gas control
YES
Refer to specifications table
Is the burner pressure reading correct?
NO
TEST 6
Is the gas supply pressure within the minimum and maximum limit for the gas type?
TEST 7
YES
YES
NO
If possible adjust the supply pressure or refer to installer or gas utility. Advise customer
YES
Turn the gas control to the off position and remove the burner assembly
Is the main burner injector loose or blocked?
YES
Tighten, clean or replace the injector
NO
Refer to specifications table
Is the main burner injector the correct size?
NO
Fit the correct injector for the model and gas type
YES
Is the main burner feed pipe blocked or obstructed?
YES
Clean or replace the burner feed pipe
NO
Is the burner head blocked or damaged?
YES
Clean or replace the burner assembly
NO

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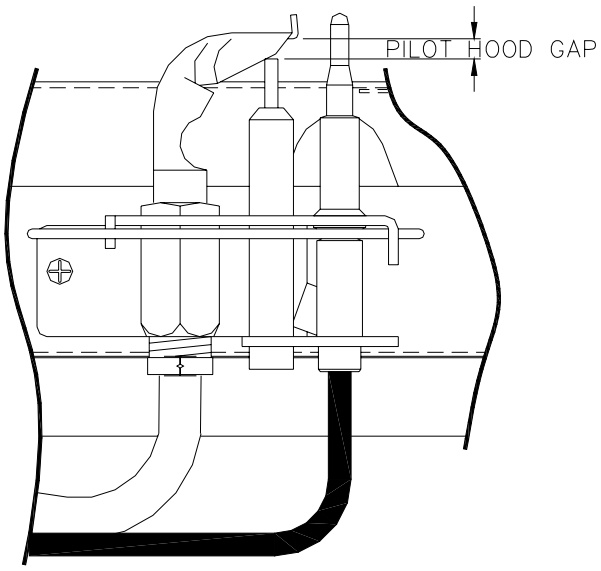
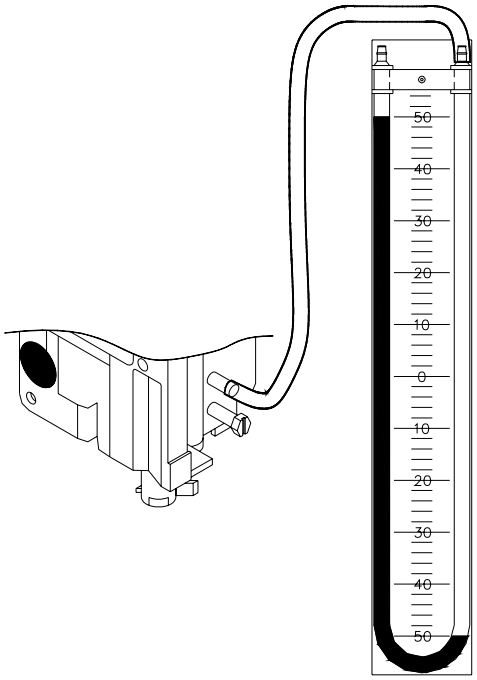
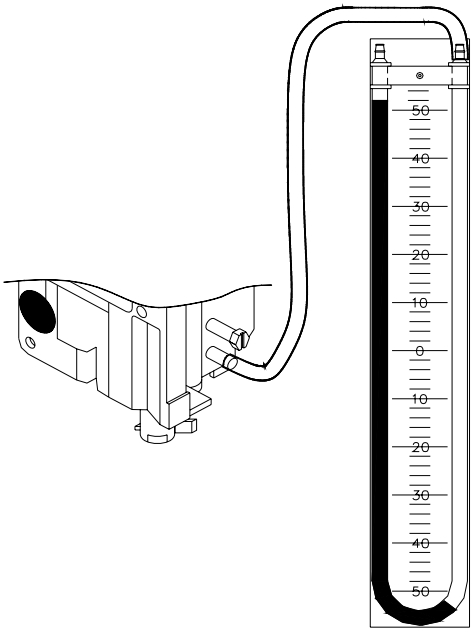
TEST 5	TEST 6
	
The gap between the pilot hood and electrode tip should be between 4 and 5mm. Gently bend the pilot hood to adjust the spark gap.	Fit manometer to burner test point. The burner gas pressure reading should be as per the specifications table on page 6.

TEST 7

Fit manometer to inlet pressure test point. With **ALL** gas burning appliances lit, including the water heater, the inlet gas pressure should be the minimum shown in the gas specification table on page 6 for the particular type of gas used. Changing the gas valve or attempting to over-gas the burner pressure will not rectify a fault caused by insufficient line pressure.

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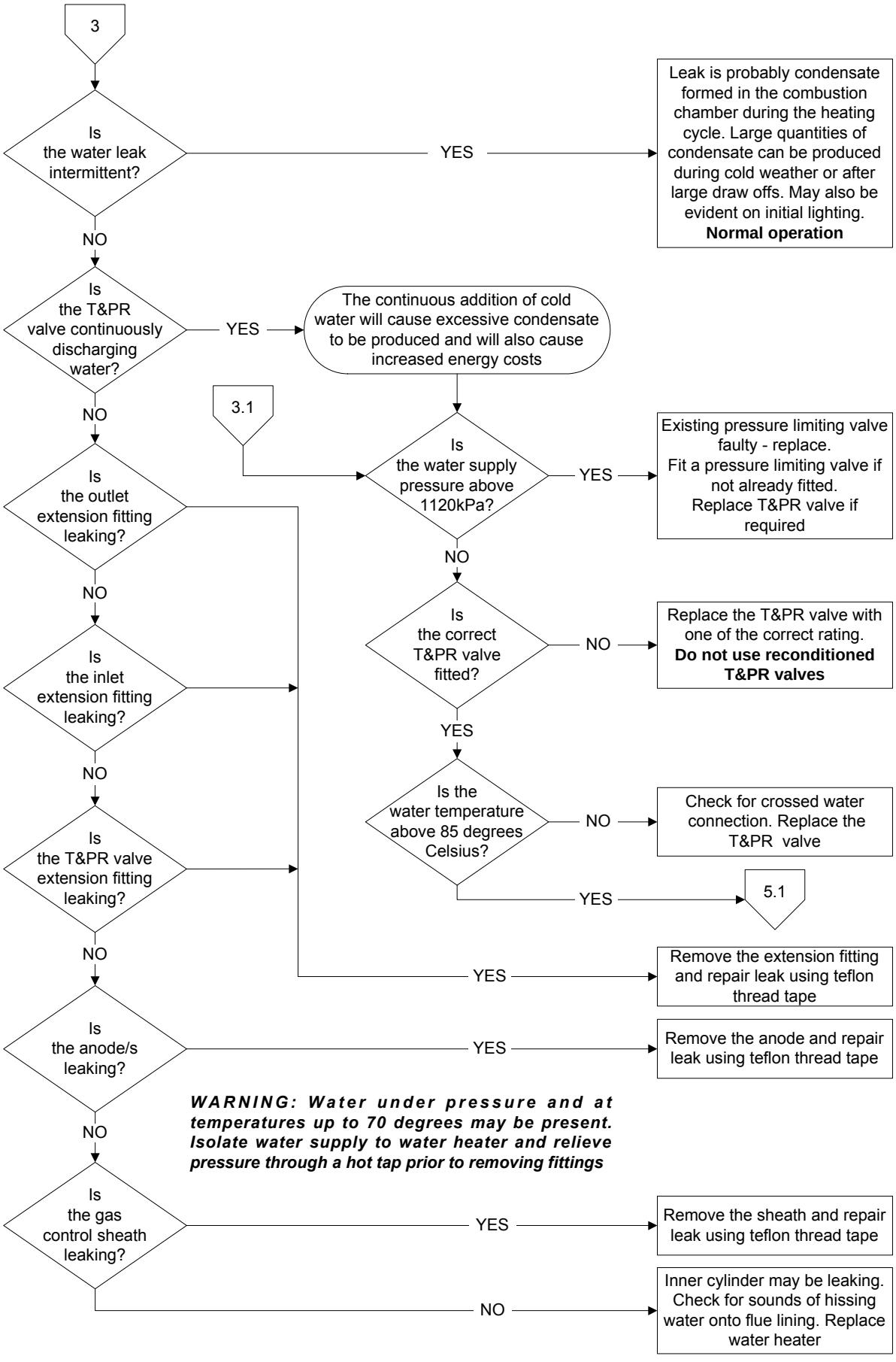
Fault Finding Chart 3


3
Is the water leak intermittent?
YES
Leak is probably condensate formed in the combustion chamber during the heating cycle. Large quantities of condensate can be produced during cold weather or after large draw offs. May also be evident on initial lighting. Normal operation
NO
Is the T&PR valve continuously discharging water?
YES
The continuous addition of cold water will cause excessive condensate to be produced and will also cause increased energy costs
NO
3.1
Is the water supply pressure above 1120kPa?
YES
Existing pressure limiting valve faulty - replace. Fit a pressure limiting valve if not already fitted. Replace T&PR valve if required
Is the outlet extension fitting leaking?
NO
Is the correct T&PR valve fitted?
NO
Replace the T&PR valve with one of the correct rating. Do not use reconditioned T&PR valves
NO
Is the inlet extension fitting leaking?
YES
Is the water temperature above 85 degrees Celsius?
NO
Check for crossed water connection. Replace the T&PR valve
NO
Is the T&PR valve extension fitting leaking?
YES
5.1
NO
YES
Remove the extension fitting and repair leak using teflon thread tape
Is the anode/s leaking?
YES
Remove the anode and repair leak using teflon thread tape
WARNING: Water under pressure and at temperatures up to 70 degrees may be present. Isolate water supply to water heater and relieve pressure through a hot tap prior to removing fittings
NO
Is the gas control sheath leaking?
YES
Remove the sheath and repair leak using teflon thread tape
NO
Inner cylinder may be leaking. Check for sounds of hissing water onto flue lining. Replace water heater

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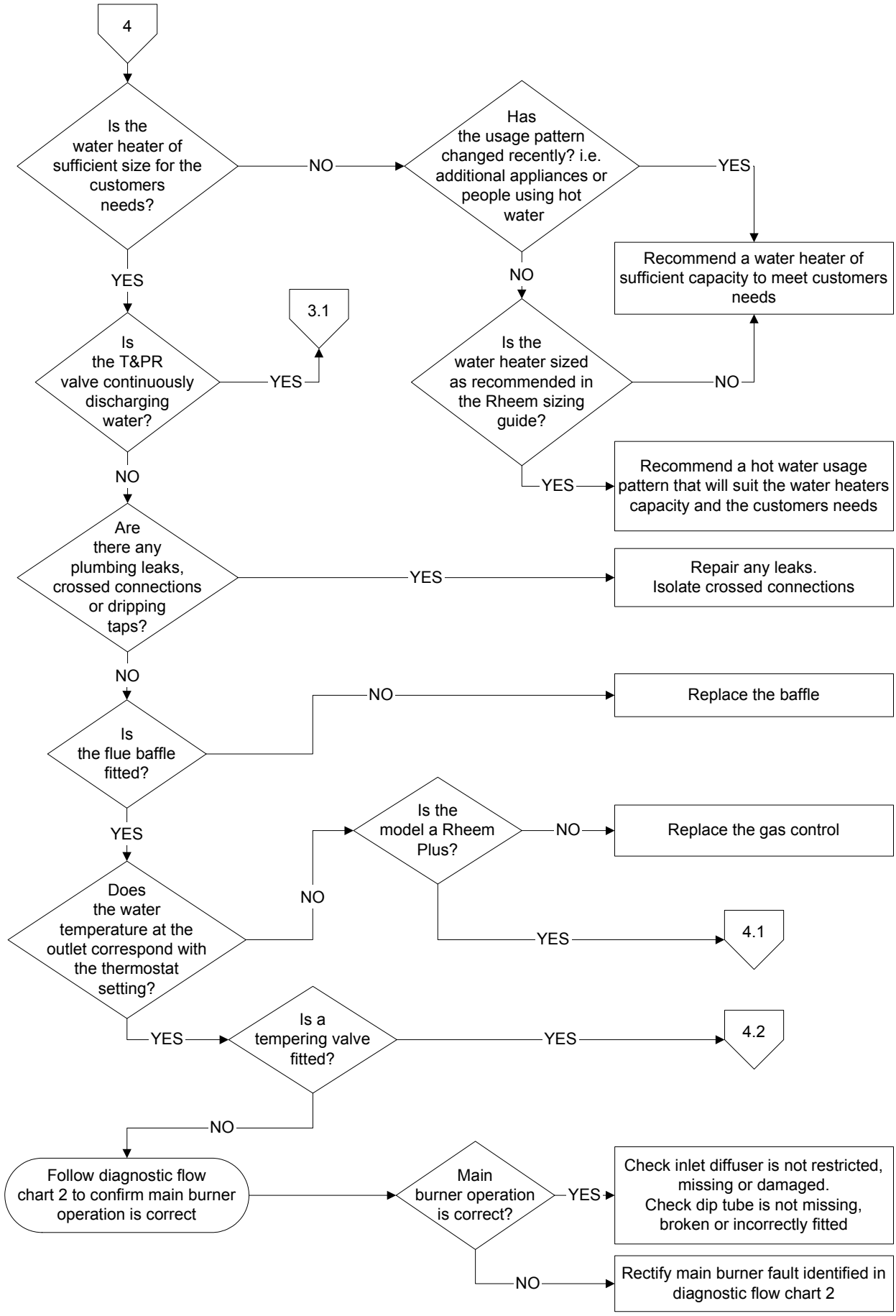
Fault Finding Chart 4


4
Is the water heater of sufficient size for the customers needs?
NO
Has the usage pattern changed recently? i.e. additional appliances or people using hot water
YES
Recommend a water heater of sufficient capacity to meet customers needs
YES
NO
3.1
Is the T&PR valve continuously discharging water?
YES
Is the water heater sized as recommended in the Rheem sizing guide?
NO
NO
YES
Recommend a hot water usage pattern that will suit the water heaters capacity and the customers needs
Are there any plumbing leaks, crossed connections or dripping taps?
YES
Repair any leaks. Isolate crossed connections
NO
Is the flue baffle fitted?
NO
Replace the baffle
YES
Is the model a Rheem Plus?
NO
Replace the gas control
Does the water temperature at the outlet correspond with the thermostat setting?
NO
YES
4.1
YES
Is a tempering valve fitted?
YES
4.2
NO
Follow diagnostic flow chart 2 to confirm main burner operation is correct
Main burner operation is correct?
YES
Check inlet diffuser is not restricted, missing or damaged. Check dip tube is not missing, broken or incorrectly fitted
NO
Rectify main burner fault identified in diagnostic flow chart 2

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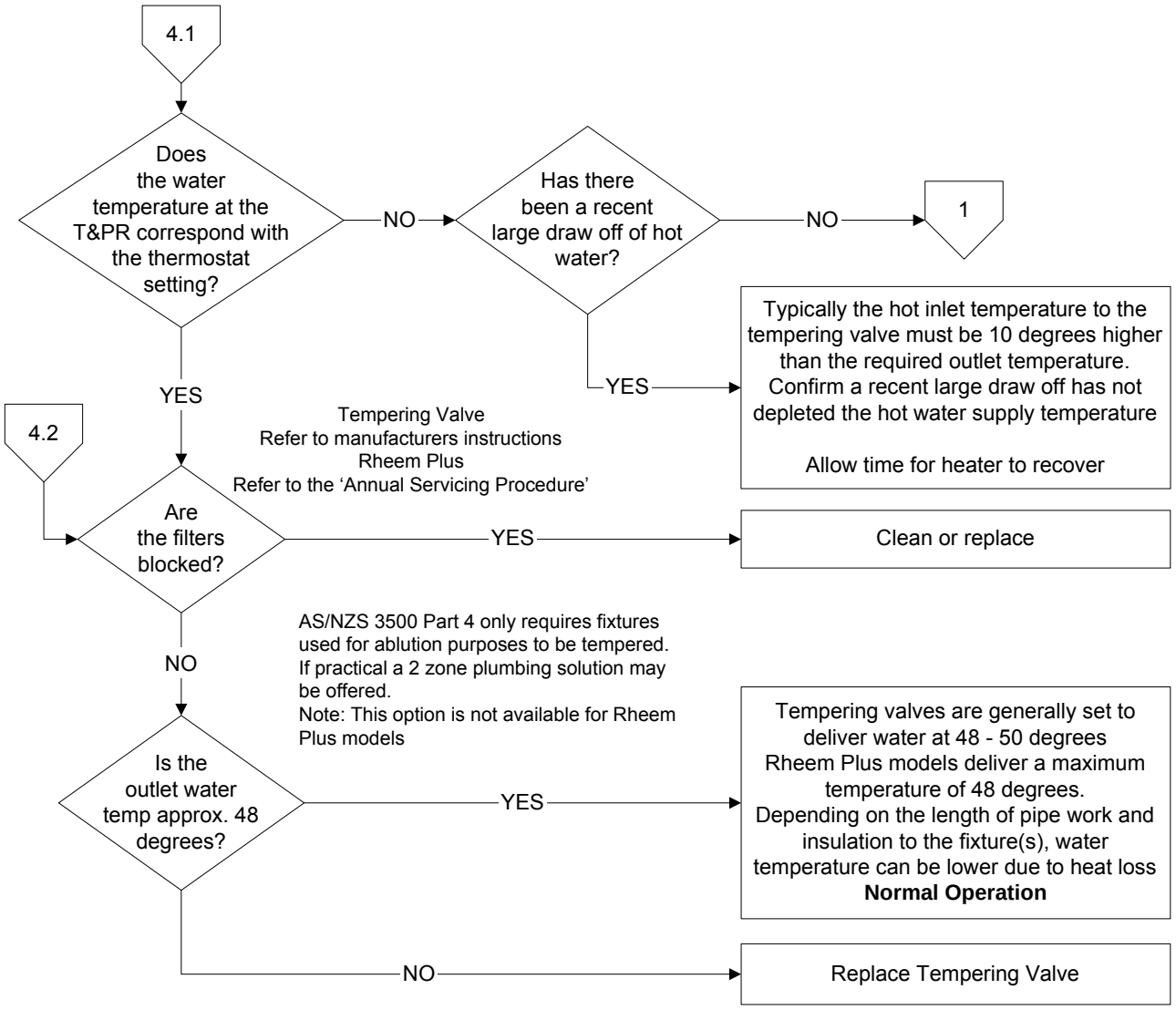
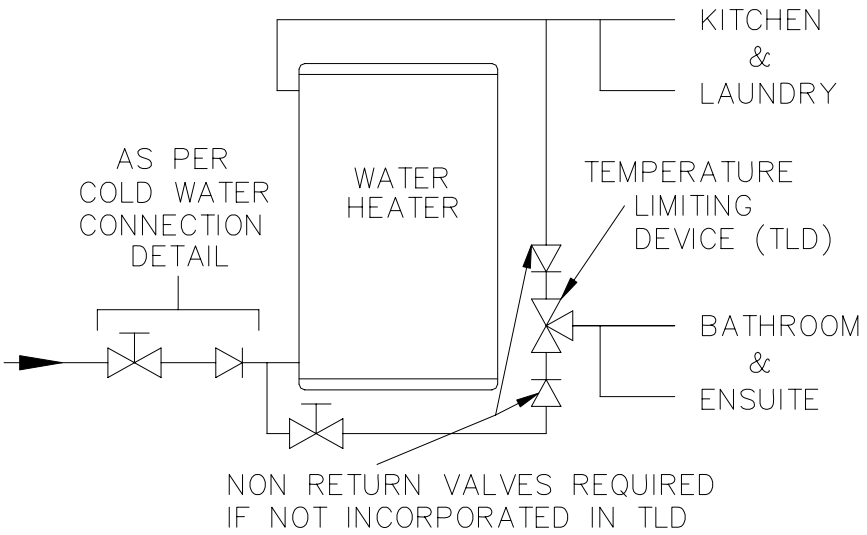

4.1
Does the water temperature at the T&PR correspond with the thermostat setting?
NO
Has there been a recent large draw off of hot water?
NO
1
YES
Typically the hot inlet temperature to the tempering valve must be 10 degrees higher than the required outlet temperature. Confirm a recent large draw off has not depleted the hot water supply temperature
Allow time for heater to recover
4.2
Tempering Valve
Refer to manufacturers instructions
Rheem Plus
Refer to the 'Annual Servicing Procedure'
Are the filters blocked?
YES
Clean or replace
AS/NZS 3500 Part 4 only requires fixtures used for ablution purposes to be tempered. If practical a 2 zone plumbing solution may be offered.
Note: This option is not available for Rheem Plus models
NO
Is the outlet water temp approx. 48 degrees?
YES
Tempering valves are generally set to deliver water at 48 - 50 degrees
Rheem Plus models deliver a maximum temperature of 48 degrees.
Depending on the length of pipe work and insulation to the fixture(s), water temperature can be lower due to heat loss
Normal Operation
NO
Replace Tempering Valve

2 Zone Plumbing Option


KITCHEN & LAUNDRY
AS PER COLD WATER CONNECTION DETAIL
WATER HEATER
TEMPERATURE LIMITING DEVICE (TLD)
BATHROOM & ENSUITE
NON RETURN VALVES REQUIRED IF NOT INCORPORATED IN TLD

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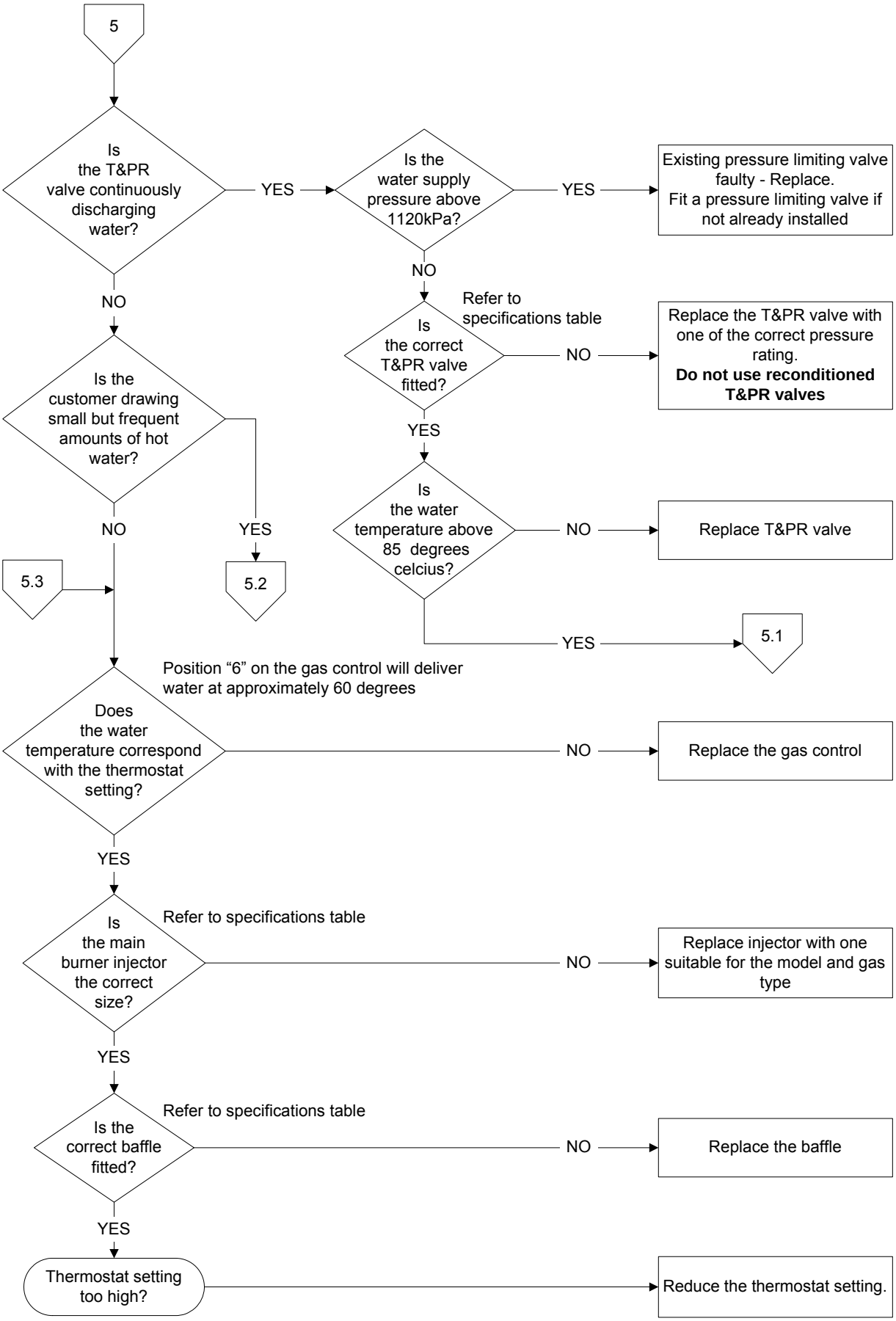
Fault Finding Chart 5


5
Is the T&PR valve continuously discharging water?
YES
Is the water supply pressure above 1120kPa?
YES
Existing pressure limiting valve faulty - Replace. Fit a pressure limiting valve if not already installed
NO
NO
Refer to specifications table
Is the correct T&PR valve fitted?
NO
Replace the T&PR valve with one of the correct pressure rating. Do not use reconditioned T&PR valves
YES
Is the customer drawing small but frequent amounts of hot water?
Is the water temperature above 85 degrees celcius?
NO
Replace T&PR valve
NO
YES
YES
5.2
5.3
YES
5.1
Position “6” on the gas control will deliver water at approximately 60 degrees
Does the water temperature correspond with the thermostat setting?
NO
Replace the gas control
YES
Refer to specifications table
Is the main burner injector the correct size?
NO
Replace injector with one suitable for the model and gas type
YES
Refer to specifications table
Is the correct baffle fitted?
NO
Replace the baffle
YES
Thermostat setting too high?
Reduce the thermostat setting.

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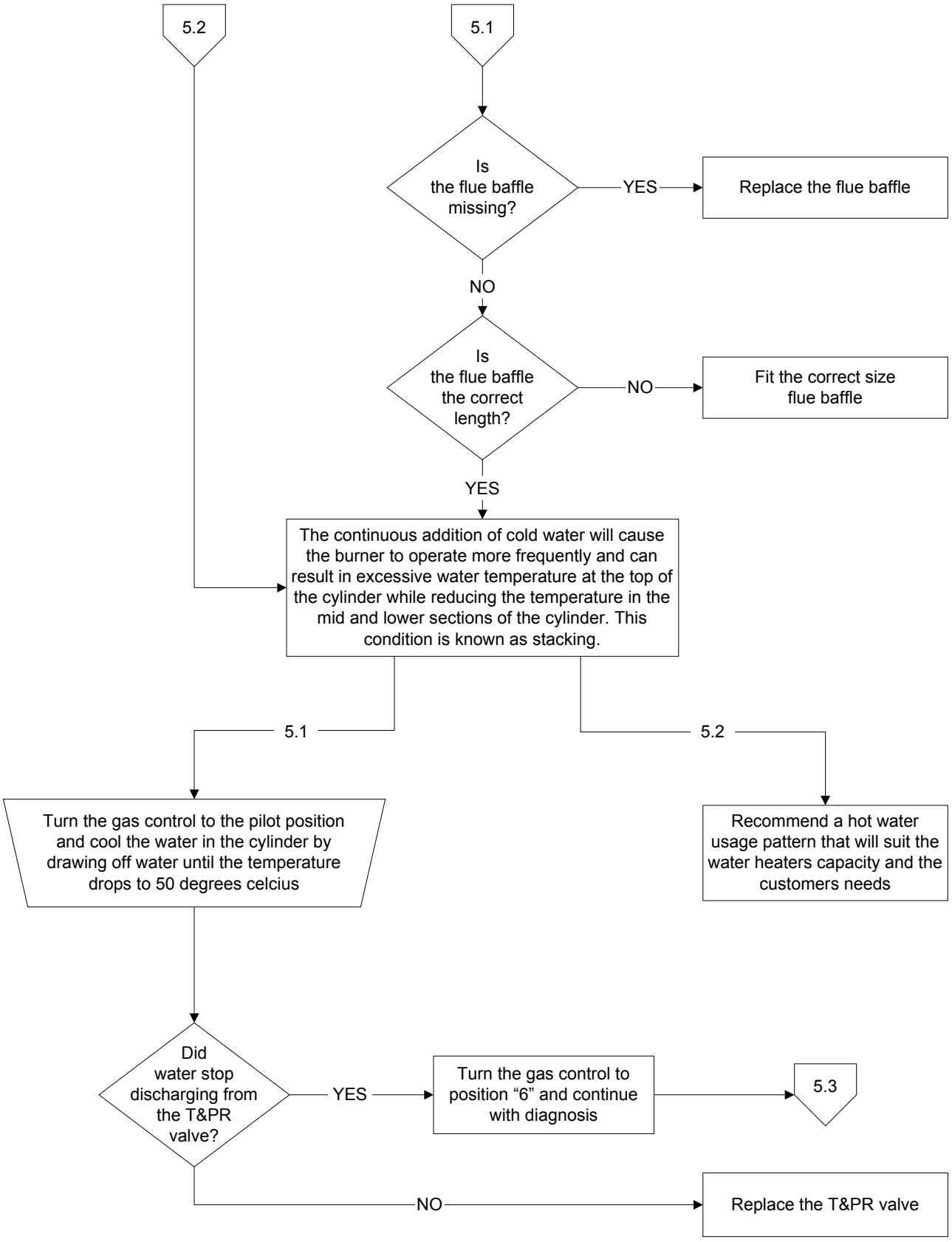
Fault Finding Charts 5.1 & 5.2


5.2
5.1
Is the flue baffle missing?
YES
Replace the flue baffle
NO
Is the flue baffle the correct length?
NO
Fit the correct size flue baffle
YES
The continuous addition of cold water will cause the burner to operate more frequently and can result in excessive water temperature at the top of the cylinder while reducing the temperature in the mid and lower sections of the cylinder. This condition is known as stacking.
5.1
5.2
Turn the gas control to the pilot position and cool the water in the cylinder by drawing off water until the temperature drops to 50 degrees celcius
Recommend a hot water usage pattern that will suit the water heaters capacity and the customers needs
Did water stop discharging from the T&PR valve?
YES
Turn the gas control to position “6” and continue with diagnosis
5.3
NO
Replace the T&PR valve

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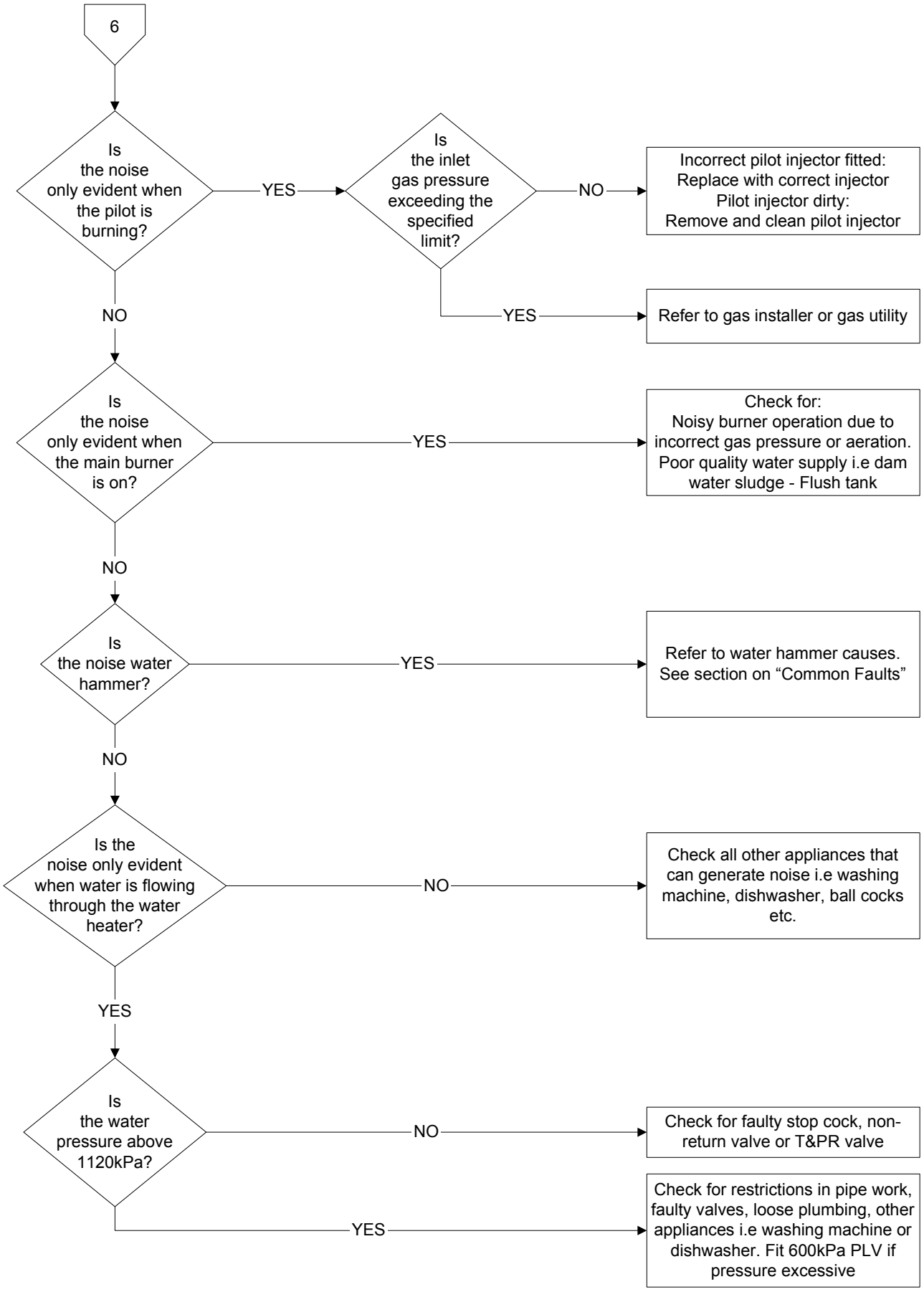
Fault Finding Chart 6


6
Is the noise only evident when the pilot is burning?
YES
Is the inlet gas pressure exceeding the specified limit?
NO
Incorrect pilot injector fitted: Replace with correct injector
Pilot injector dirty: Remove and clean pilot injector
YES
Refer to gas installer or gas utility
NO
Is the noise only evident when the main burner is on?
YES
Check for: Noisy burner operation due to incorrect gas pressure or aeration. Poor quality water supply i.e dam water sludge - Flush tank
NO
Is the noise water hammer?
YES
Refer to water hammer causes. See section on “Common Faults”
NO
Is the noise only evident when water is flowing through the water heater?
NO
Check all other appliances that can generate noise i.e washing machine, dishwasher, ball cocks etc.
YES
Is the water pressure above 1120kPa?
NO
Check for faulty stop cock, non-return valve or T&PR valve
YES
Check for restrictions in pipe work, faulty valves, loose plumbing, other appliances i.e washing machine or dishwasher. Fit 600kPa PLV if pressure excessive

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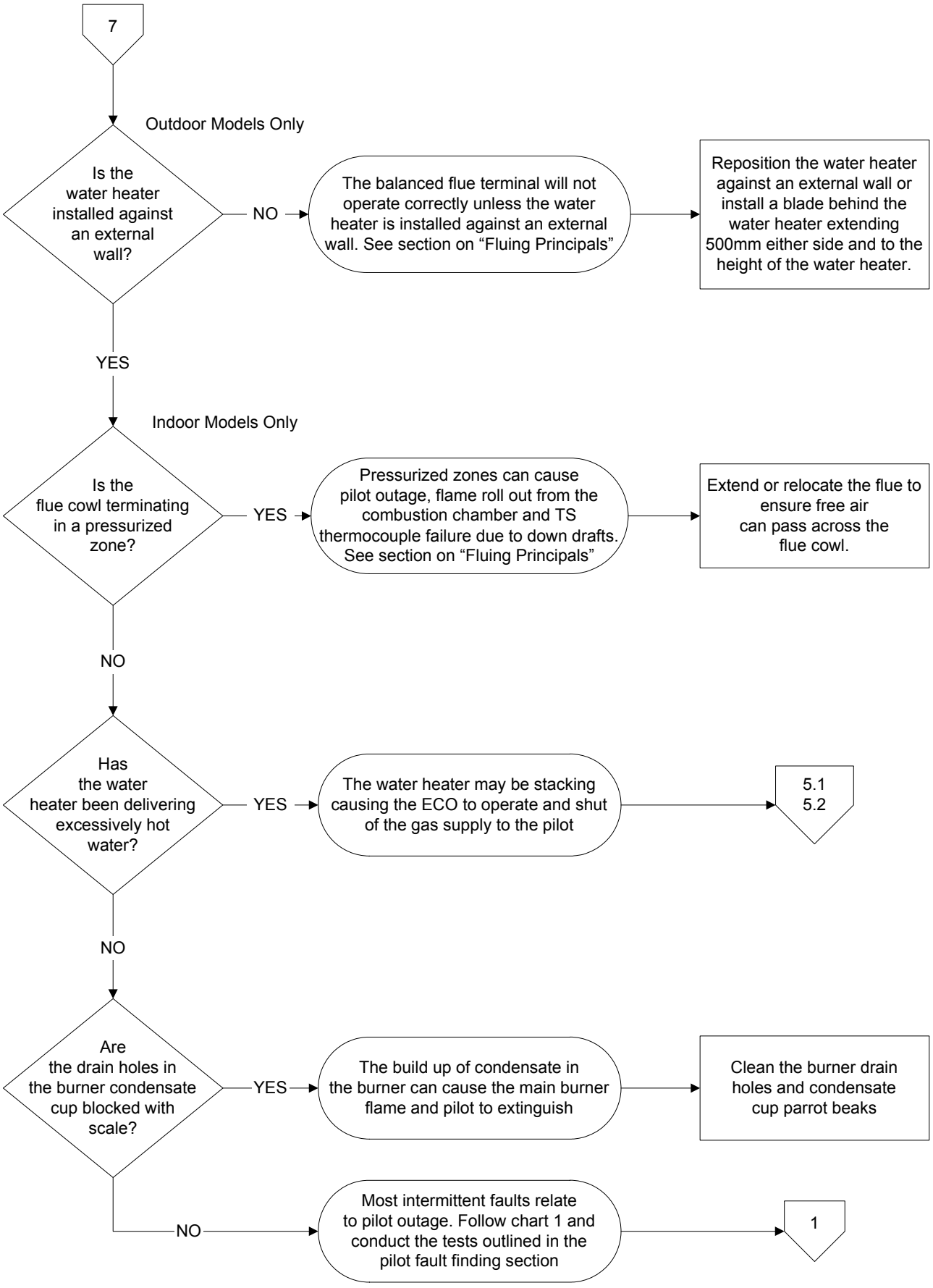
Fault Finding Chart 7


7
Outdoor Models Only
Is the water heater installed against an external wall?
NO
The balanced flue terminal will not operate correctly unless the water heater is installed against an external wall. See section on “Fluing Principals”
Reposition the water heater against an external wall or install a blade behind the water heater extending 500mm either side and to the height of the water heater.
YES
Indoor Models Only
Is the flue cowl terminating in a pressurized zone?
YES
Pressurized zones can cause pilot outage, flame roll out from the combustion chamber and TS thermocouple failure due to down drafts. See section on “Fluing Principals”
Extend or relocate the flue to ensure free air can pass across the flue cowl.
NO
Has the water heater been delivering excessively hot water?
YES
The water heater may be stacking causing the ECO to operate and shut of the gas supply to the pilot
5.1
5.2
NO
Are the drain holes in the burner condensate cup blocked with scale?
YES
The build up of condensate in the burner can cause the main burner flame and pilot to extinguish
Clean the burner drain holes and condensate cup parrot beaks
NO
Most intermittent faults relate to pilot outage. Follow chart 1 and conduct the tests outlined in the pilot fault finding section
1

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Draining the Water Heater – 90L to 170L models (Procedure 1)

Elevated temperatures may be present during the draining process. Personal Protective Equipment should be worn to prevent the risk of scalding.

1. ***Isolate the gas and water supplies to the water heater.***
2. ***Relieve pressure from the water heater through T&PR valve or a hot tap.***
3. Disconnect the cold water supply pipe.
4. Fit a drain hose to the cold water connection and run the other end to a drain or safe location.
5. Open the temperature and pressure relief valve to allow air into the system.

Draining the Water Heater - 620260 and 630260 (Procedure 2)

Elevated temperatures may be present during the draining process. Personal Protective Equipment should be worn to prevent the risk of scalding.

1. ***Isolate the gas and water supplies to the water heater.***
2. ***Relieve pressure from the water heater through T&PR valve or a hot tap.***
3. Fit a drain hose to the drain cock outlet and run the other end to a drain or safe location.
4. Open the drain cock.
5. Open the temperature and pressure relief valve to allow air into the system.

Gas Control Replacement Only (Procedure 3)

1. Remove the access door (outdoor models) or the pipe cover (indoor models).
2. Note the current setting on the gas control.
3. Turn the gas control to the off position.
4. ***Isolate the gas supply.***
5. Disconnect the gas line at the gas control.
6. Indoor Models Only: Remove the plastic trim from the front of the gas control.
7. Disconnect the pilot feed pipe, burner feed pipe, igniter lead and thermocouple.
8. Remove the screw retaining the plastic top cover and remove the plastic top cover.
9. Using a screwdriver release the spring clip and withdraw the gas control from the adapter.
10. Reassemble in reverse order of above.
11. Restore gas supply.
12. ***Fit new lighting instructions when replacing a non-interlock type gas control with an interlocked version*** (refer to page 12).
13. Relight the pilot. ***Lighting instructions are provided on the access door or on the front of the water heater, follow the instructions carefully.***

    Test for gas leaks at all unions using soapy water solution.

14. Turn gas control to setting noted in step 2 and refit access cover.

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Gas Control and Burner Assembly Removal (Procedure 4)

1. Remove the access door (outdoor models) or the pipe cover (indoor models).
2. Note the current setting on the gas control.
3. Turn the gas control to the off position.
4. ***Isolate the gas supply.***
5. Disconnect the gas line at the gas control.
6. Indoor Models Only: Remove the plastic trim from the front of the gas control.
7. Remove holding screw from the burner-mounting bracket.
8. Disconnect the igniter lead from the piezo igniter.
9. Undo the screw retaining the plastic top cover on the gas control and remove the plastic top cover.
10. Using a screwdriver, release the spring clip and withdraw the gas control and burner assembly.
11. Reassemble in reverse order of above.
12. Restore gas supply.
13. Relight the pilot. ***Lighting instructions are provided on the access door or on the front of the water heater, follow the instructions carefully.***

    Test for gas leaks at all unions using soapy water solution.
14. Turn gas control to setting noted in step 2 and refit access cover.

Thermocouple Replacement (Procedure 5)

1. Remove the gas control and burner assembly. (Refer to procedure 4).
2. Disconnect the thermocouple from the gas control.
3. Using a flat blade screwdriver spread the spring clip retaining the thermocouple head into the pilot assembly bracket and withdraw the thermocouple from the bracket.
4. Reassemble in the reverse order of above.

   Due to the design of the bracket the correct type of thermocouple is the only type that can and must be fitted as a replacement. Refer to page 11.
5. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***
6. Turn gas control to setting noted previously.
7. Refit access cover.

Adapter Replacement (Procedure 6)

1. Drain the water heater. (Refer to procedure 1 or procedure 2).
2. Remove the gas control and burner assembly. (Refer to procedure 4).
3. Using a 27mm socket, to prevent damage to the slot, unscrew the adapter and remove.
4. ***Apply thread-sealing tape to the adapter thread and tighten so that the slot is horizontal with a minimum of 2 threads or a maximum of 4 threads protruding from the cylinder fitting.***
5. Refit gas control and burner assembly.
6. Refill the water heater, ensure air is purged from cylinder and pipe work.
7. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***
8. Refit access cover.

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T&PR Valve Replacement (Procedure 7)

Never fit a T&PR valve with a rating higher than that indicated on the water heater rating label. Do not use reconditioned T&PR valves.

1. ***Isolate the gas and water supplies to the water heater.***
2. ***Relieve pressure from the water heater through the T&PR valve or a hot tap.***
3. Remove the drain line from the T&PR valve.
4. Unscrew the T&PR valve and remove.

A quantity of hot water will discharge from the tank during this process. Personal Protective Equipment should be worn to prevent scalds or burns.

5. Confirm the replacement T&PR valve is the correct rating and refit using thread tape.
6. Refit the drain line.
7. Close the hot tap and restore water supply.
8. Check T&PR valve thread for leaks.
9. Operate the T&PR valve lever to reset relief drain.
10. Purge air from the system through hot taps.
11. Restore the gas supply to the water heater and relight the pilot.

Anode Inspection or Replacement (Procedure 8)

1. Remove the access door (outdoor models).
2. Note the current setting on the gas control.
3. Turn the gas control to the off position.
4. ***Isolate water supply at stop cock and relieve pressure through a hot tap or the T&PR valve.***
5. **Outdoor models:** Remove holding screws from the jacket top and remove jacket top and flue terminal assembly. **Indoor models:** Remove the plastic anode cover.
6. Using a 27mm tube or socket spanner unscrew and remove the anode(s).
7. Apply thread sealing tape to anode(s) thread, refit and tighten.
8. Restore water supply and check for leaks.
9. **Outdoor models:** Refit the jacket top and flue terminal assembly. **Indoor models:** Refit the plastic anode cover.
10. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***
11. Turn gas control to setting noted previously.
12. Refit access cover.

Pilot Assembly Replacement (Procedure 9)

1. Remove the gas control and burner assembly (Refer to procedure 4).
2. Disconnect the pilot feed pipe and thermocouple from the gas control and disconnect the high-tension lead from the piezo igniter.
3. Remove the screw retaining the pilot assembly to the burner air channel.
4. Reassemble in the reverse order of above.
5. Restore gas supply.
6. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***

   Test for gas leaks using soapy water solution after reconnecting gas supply.
7. Turn gas control to setting noted previously.
8. Refit access cover.

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Pilot Injector Replacement (Procedure 10)

1. Remove the gas control and burner assembly (Refer to procedure 4).
2. Disconnect the pilot pipe at the pilot assembly and draw the pilot feed pipe from the pilot assembly. ***Note: The injector is clipped to the end of the pilot feed pipe and will be removed as the pipe is withdrawn from the pilot assembly.***
3. Slide the replacement injector over the end of the pilot feed pipe, ensuring the injector skirt slips over and engages the formed end of the pilot feed pipe, prior to inserting the pilot feed pipe into the pilot assembly. ***Do not slide the injector into the pilot assembly and insert the feed pipe after.***
4. Carefully insert the injector and pilot feed pipe as an assembly into the pilot assembly, ensuring the injector does not disengage from the pilot feed pipe, and tighten the retaining nut.
5. Restore gas supply.
6. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***

   Test for gas leaks using soapy water solution after reconnecting gas supply.
7. Turn gas control to setting noted previously.
8. Refit access cover (outdoor models).

Main Burner Injector Replacement (Procedure 11)

1. Remove the gas control and burner assembly (Refer to procedure 2).
2. Remove the burner feed pipe (Refer to procedure 12).
3. Unscrew the injector from the burner feed pipe.
4. Fit the replacement injector to the burner feed pipe using gas paste or similar to ensure a gas tight seal. ***Ensure the paste does not block the injector orifice.***
5. Reassemble in the reverse order of above.
6. Restore gas supply.
7. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***

   Test for gas leaks using soapy water solution after reconnecting gas supply.
8. Turn gas control to setting noted previously.
9. Refit access cover (outdoor models).

Piezo Igniter Replacement (Procedure 12)

1. Remove the access cover (outdoor models).
2. Note the current setting on the gas control.
3. Turn the gas control to the pilot position.
4. Disconnect the igniter lead from the piezo igniter.
5. Undo the screw retaining the plastic top cover on the gas control and remove the plastic top cover.
6. Remove the piezo igniter.
7. Reassemble in reverse order of above.
8. Turn gas control to setting noted previously.
9. Refit access cover.

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Burner Feed Pipe Replacement (Procedure 13)

1. Remove the gas control and burner assembly (Refer to procedure 4).
2. Disconnect the burner feed pipe from the gas control.
3. Remove the retaining clip holding the burner feed pipe to the burner air duct.
4. Hinge the burner feed pipe down to disengage the tongue from the end of the burner air duct.
5. Remove the injector.
6. Fit the injector to the replacement burner feed pipe using gas paste or similar to ensure a gas tight seal. ***Ensure the paste does not block the injector orifice.***
7. Reassemble In reverse order of above.
8. Restore gas supply.
9. Relight the pilot. ***Lighting instructions are provided on the access door or the front of the water heater, follow the instructions carefully.***

   Test for gas leaks using soapy water solution after reconnecting gas supply.
10. Turn gas control to setting noted previously.
11. Refit access cover (outdoor models).

Dip Tube Replacement (Procedure 14)

1. ***Isolate the gas and water supplies to the water heater.***
2. ***Relieve pressure from the water heater through the T&PR valve or a hot tap.***
3. Disconnect the hot water line from the outlet of the water heater.

   A quantity of hot water will discharge from the outlet during this process. Personal Protective Equipment should be worn to prevent scalds or burns.
4. Using a flat blade screwdriver gently split the outer rim at the top and bottom of the dip tube face and prise the dip tube out of the cylinder fitting.
5. Fit the replacement dip tube into the cylinder fitting ensuring the flat lines up with the fitting (dip tube facing up) and gently drive the dip tube into the fitting a short distance.
6. Apply thread tape to the plumbing fitting and refit; this will push the dip tube into the correct location.
7. Reconnect the hot water line and restore the water supply.
8. Purge air from the system through hot taps.
9. Restore the gas supply and relight the pilot.

Flue Terminal Replacement (Procedure 15)

1. Remove the access door.
2. Note the current setting on the gas control.
3. ***Turn the gas control to the pilot position.***
4. Remove the 4 screws holding the flue terminal to the jacket.
5. Remove the flue terminal.
6. Reassemble in reverse order of above.
7. Turn the gas control to the position noted in step 2.
8. Refit the access door.

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Cold Water Connector – Rheem Plus Models (Procedure 16)

Elevated temperatures may be present during the draining process. Personal Protective Equipment should be worn to prevent the risk of scalding.

1. ***Isolate gas and water supplies.***
2. ***Relieve pressure from water heater through the T & PR valve or a hot tap.***
3. Drain the water heater. Refer to procedure 1 on page 31.
4. Remove cold water and cold pipe access covers.
5. Disconnect plastic cold water pipe from cold water connector and unscrew cold water connector from heater.

Note: Removal of the cold pipe requires the use of a special tool, part number 890330. To remove the cold pipe from the cold water connector slide the tool over the pipe and push down against the quick connect fitting whilst pulling up on the cold pipe.

6. Screw new cold water connector into cylinder using thread tape on threaded section.
7. Insert plastic cold pipe into cold water connector snap lock fitting and push down clicking plastic cold pipe into fitting (no tool required).
8. Reconnect cold water supply pipe.
9. Restore water supply and check for leaks.
10. Purge air from the system through hot taps.
11. Refit cold water and cold pipe access covers.
12. When tank is full restore gas supply and relight the pilot.

Tempering Valve – Rheem Plus Models (Procedure 17)

A quantity of hot water will discharge from the tank during this process. Personal Protective Equipment should be worn to prevent scalds or burns.

1. ***Isolate the gas and water supplies to the water heater.***
2. ***Relieve pressure from the water heater through the T&PR valve or a hot tap.***
3. Drain the water heater. Refer to procedure 1 on page 31.
4. Remove the tempering valve and cold pipe access covers.
5. Disconnect cold and warm water pipes from tempering valve and unscrew tempering valve from heater.

   Note: Removal of the cold pipe requires the use of a special tool, part number 890330. To remove the cold pipe from the tempering valve slide the tool over the pipe and push up against the quick connect fitting whilst pulling down on the cold pipe.

6. Screw new tempering valve into heater using thread tape on threaded section.
7. Insert cold pipe into tempering valve quick connect fitting and push up to click pipe into place (no tool required).
8. Reconnect warm water pipe using thread tape on threaded section.
9. Close hot tap or T&PR valve and restore water supply.
10. Check for leaks.
11. Purge air from the system through hot taps.
12. When tank is full restore gas supply and relight the pilot.

After replacing the tempering valve the warm water temperature will need to be checked to ensure correct operation. Refer to steps 11 to 13 in the Rheem Plus Tempering Valve Annual Service Procedure on page 37.

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A quantity of hot water will discharge from the tank during this process. Personal Protective Equipment should be worn to prevent scalds or burns.

1. Remove the tempering valve. Follow steps 1 to 5 in Procedure 17 on page 36.
2. Dismantle and clean or replace hot water inlet filter. The “C” clip and filter can be removed by gently prising out with a small flat bladed screwdriver. When clean reassemble by inserting filter then the “C” clip.
3. Dismantle and clean or replace cold water inlet filter and non-return valve. Unscrew quick connect fitting and gently prise out filter and then non-return valve (a “C” clip is not fitted). Reassemble in reverse order ensuring that the “O” ring for the quick connect fitting is in place. No thread tape is required on the snap lock fitting thread.
4. Screw tempering valve back into heater using thread tape on threaded section.
5. Insert cold pipe into tempering valve quick connect fitting and push up to click pipe into place (no tool required).
6. Reconnect warm water pipe using thread tape on threaded section.
7. Close hot tap or T&PR valve and restore water supply.
8. Check for leaks.
9. Purge air from the system through hot taps.
10. When tank is full restore gas supply and relight pilot.

    After servicing the tempering valve the warm water temperature will need to be checked to ensure correct operation.
11. Ensure heater is at operating temperature (60 - 66°C). This can be checked at the T&PR valve.
12. Check temperature at the **NEAREST** warm water tap. A reading of 48°C +/- 1.5°C should be obtained. If the reading is outside these parameters the tempering valve should be replaced (see Procedure 17 on page 36).

    Ensure Temperature at the warm water outlet nearest the water heater does not exceed 50 Deg C as required by AS3500.4 clause 1.9.2.
13. Refit all access covers.

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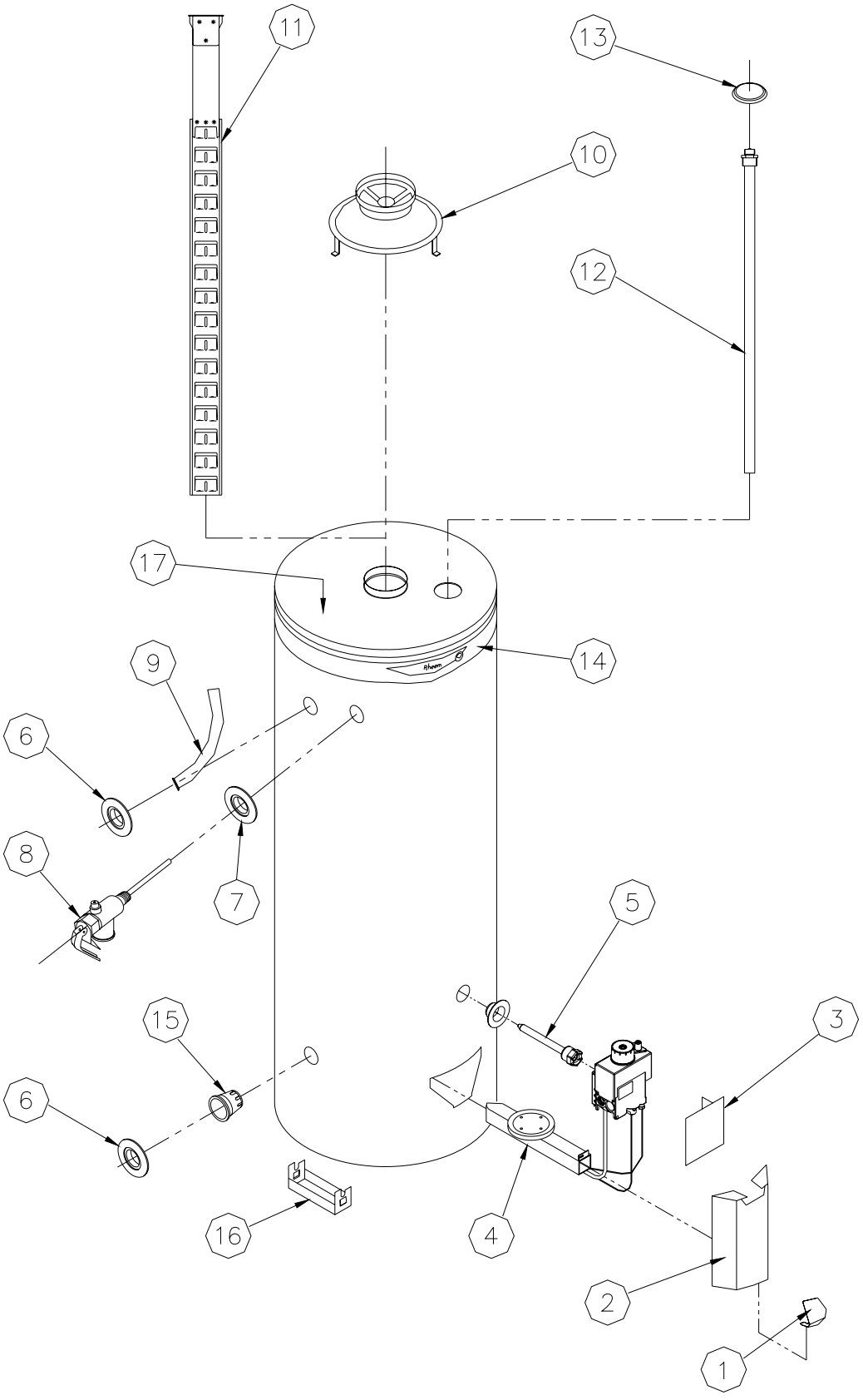
Exploded View – 90L to 170L Indoor Heater



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Replacement Parts List (Indoor Models) 90L - 170L

Item	Description	Part Number
1	Pilot viewing mirror	103805
2	Front cover – Metal	101312-1
3	Front cover – Plastic	226930
4	Burner assembly	Refer to page 42
5	Adapter	079426
6	Pipe seal - Inlet / Outlet	221371
7	Pipe seal - T & PR	221297-1
8	T & PR valve	220610
9	Dip Tube	225601
10	Draught diverter	102802-1
11	Baffle (90L)	071843
	Baffle (130 & 135L)	071856
	Baffle (170L)	071845
12	Anode – Black (300090)	221913
	Anode – Black (300135)	221909
	Anode – Black (300170)	221915
	Anode – Black (620130)	221914
	Anode – Blue (300090)	221923
	Anode – Blue (300135 & 620130)	221924
	Anode – Blue (300170)	221925
	Anode – Green (300090)	222013
	Anode – Green (300135 & 620130)	222014
	Anode – Green (300170)	222015
13	Anode cover	221710-1
14	Name Band (300 series)	120628
	Name Band (620 series)	120630
15	Inlet diffuser (300135 & 300170)	220901
	Inlet diffuser (620130)	220904
16	Foot	101402
17	Jacket Top	101214-1

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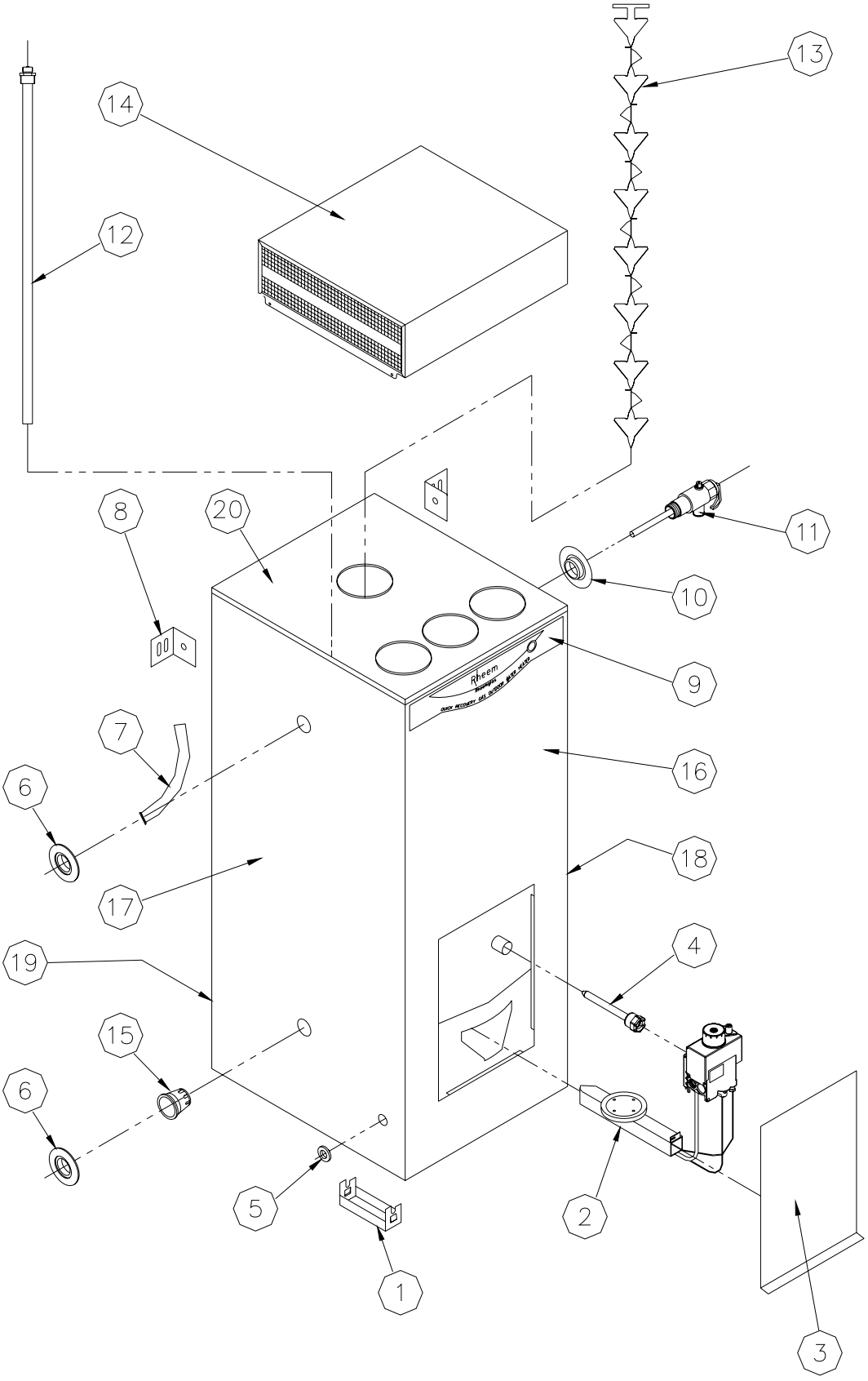
Exploded View – 90L to 170L Outdoor Heater



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Replacement Parts List – Outdoor Models 90L - 170L

Item	Description	Part Number
1	Foot	101402
2	Burner assembly	Refer to page 42
3	Access door	104603-1
4	Adapter	079411
5	Grommet	080007
6	Pipe seal – Inlet/Outlet	221331
7	Dip tube	225601
8	Wall bracket	106110
9	Name Band (311, 314 & 811 series)	120810
	Name Band (630 series)	120804
10	Pipe seal - T & PR	221207-1
11	T & PR valve	220610
12	Anode - Black (90L)	221913
	Anode - Black (135L)	221909
	Anode - Black (170L)	221915
	Anode - Black (630130)	221914
	Anode - Blue (90L)	221923
	Anode - Blue (90L)	221924
	Anode - Blue (170L)	221925
	Anode - Green (90L)	222013
	Anode - Green (135L)	222014
	Anode - Green (170L)	222015
13	Baffle (90L)	071848
	Baffle (135L)	071849
	Baffle (170L)	071850
14	Flue terminal - Joey Grey (311, 314 and 630 Series)	104709-1
	Flue terminal - Mountain Blue (811 series)	104709-3
15	Inlet Diffuser (311, 314 & 811 series)	220901
	Inlet Diffuser (630 series)	220904
16	Jacket Front (90L)	104414-1
	Jacket Front (135 & 130L)	104415-1
	Jacket Front (170L)	104416-1
17	Jacket Left Side (90L)	104124-1
	Jacket Left Side (135L)	104125-1
	Jacket Left Side (170L)	104126-1
18	Jacket Right Side (90L)	104214-1
	Jacket Right Side (135L)	104215-1
	Jacket Right Side (170L)	104216-1
19	Jacket Rear (90L)	104301
	Jacket Rear (135L)	104302
	Jacket Rear (170L)	104303
20	Jacket Top - Joey Grey (311, 314 & 630 series)	104513-1
	Jacket Top - Mountain Blue (811 series)	104513-3
Page 13	Insulation - LH & RH (90L & 630130)	090310
	Insulation - LH & RH (135 & 170L)	090311
	Insulation Bottom - LH & RH (170L)	090312

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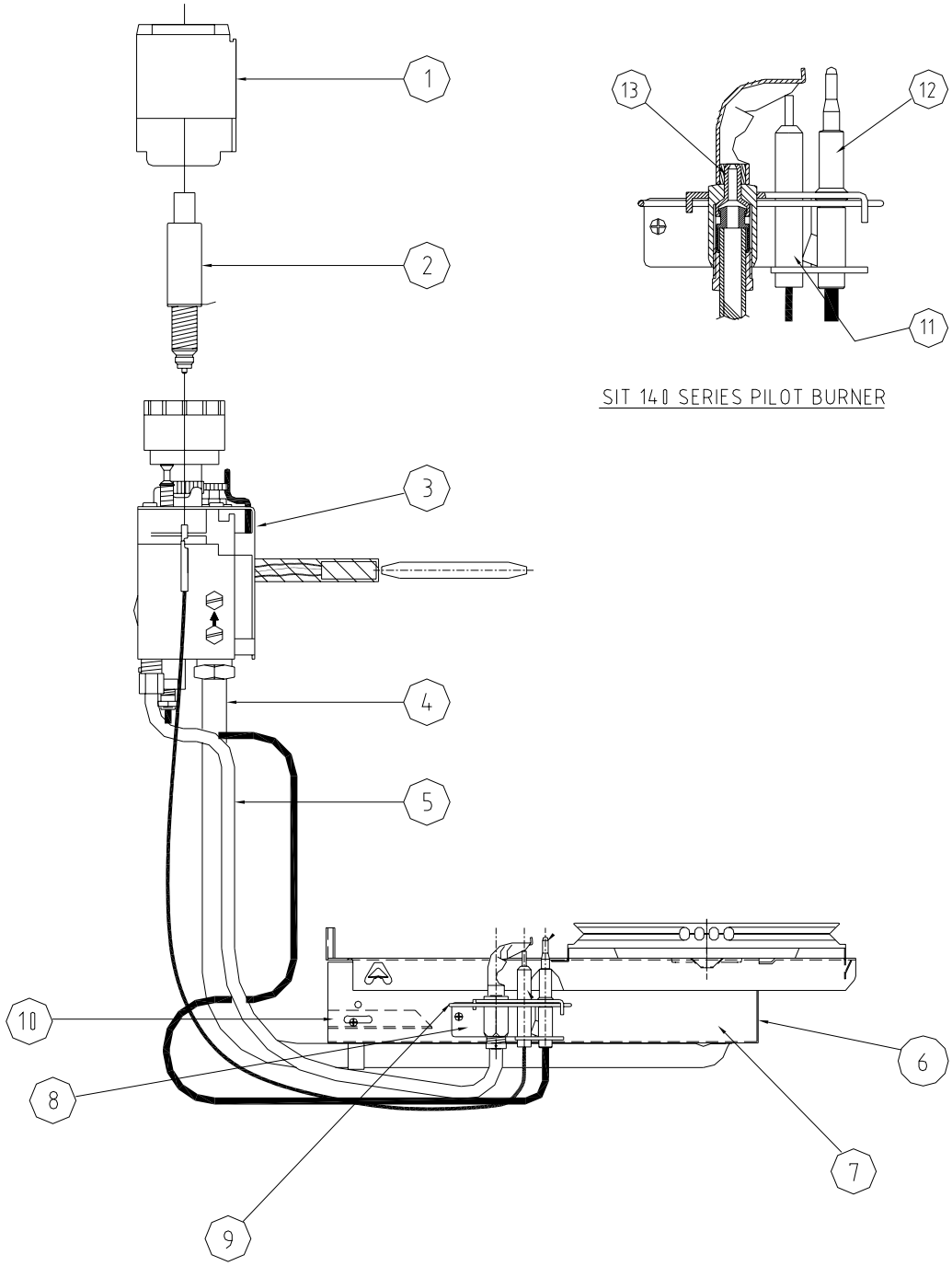
Exploded View – Gas Control and Burner Assembly 90L - 170L



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Replacement Parts List - Gas Control and Burner Assembly 90L - 170L

Item	Description	Indoor	Outdoor
1	Gas Control Cover	890176	890176
2	Piezo Igniter	890202	890202
3	Gas Control 60ºC - Natural (300/311/314/811 series)	079421	079421
	Gas Control 60ºC – LP/Butane (300/311/314/811 series)	079424	079424
	Gas Control 60ºC - TLP (300/311/314/811 series)	079422	079422
	Gas Control 80ºC - Natural (620/630 series)	079428	079428
	Gas Control 80ºC - LP Gas (620/630 series)	079429	079429
4	Burner Feed Pipe – Natural/TLP Gas	070801	070859
	Burner Feed Pipe – LP/Butane Gas	070800	070858
5	Pilot Feed Pipe	071507	071507
6	Burner Assy – Natural Gas (90L)	070183	070483
	Burner Assy – Natural Gas (135L)	070310	070485
	Burner Assy – Natural Gas (170L)	070310	070486
	Burner Assy – LP Gas (90L)	070184	070452
	Burner Assy – LP Gas (135L)	070193	070192
	Burner Assy – LP Gas (170L)	070193	070191
	Burner Assy – Butane Gas	070185	070194
	Burner Assy – TLP Gas (90L)	070186	070490
	Burner Assy – TLP Gas (135L)	070187	070507
	Burner Assy – TLP Gas (170L)	070187	070503
7	Burner Injector – Natural Gas (90L)	073325	073327
	Burner Injector – Natural Gas (135L)	073327	073328
	Burner Injector – Natural Gas (170L)	073327	073336
	Burner Injector – LP Gas (90L)	073355	073352
	Burner Injector – LP Gas (135L)	073352	073370
	Burner Injector – LP Gas (170L)	073352	073320
	Burner Injector – Butane Gas (90L, 135L & 170L)	073351	073368
	Burner Injector – TLP Gas (90L)	073342	073347
	Burner Injector – TLP Gas (135L)	073338	073340
	Burner Injector – TLP Gas (170L)	073338	073361
8	Pilot Assy – Natural Gas	070959	070959
	Pilot Assy – LP & Butane Gas	070953	070953
	Pilot Assy – TLP Gas	070961	070961
9	Pilot Draught Shield	076605	076605
10	Aeration Shutter (LP, Butane & TLP only)	071201	071201
11	Spark Plug And Lead	890175	890175
12	Thermocouple	071428	071428
13	Pilot Injector – Natural Gas	890181	890181
	Pilot Injector – LP/ Butane Gas	890197	890197
	Pilot Injector – TLP Gas	890198	890198
*	Burner Feed Pipe Clip	071303	071303

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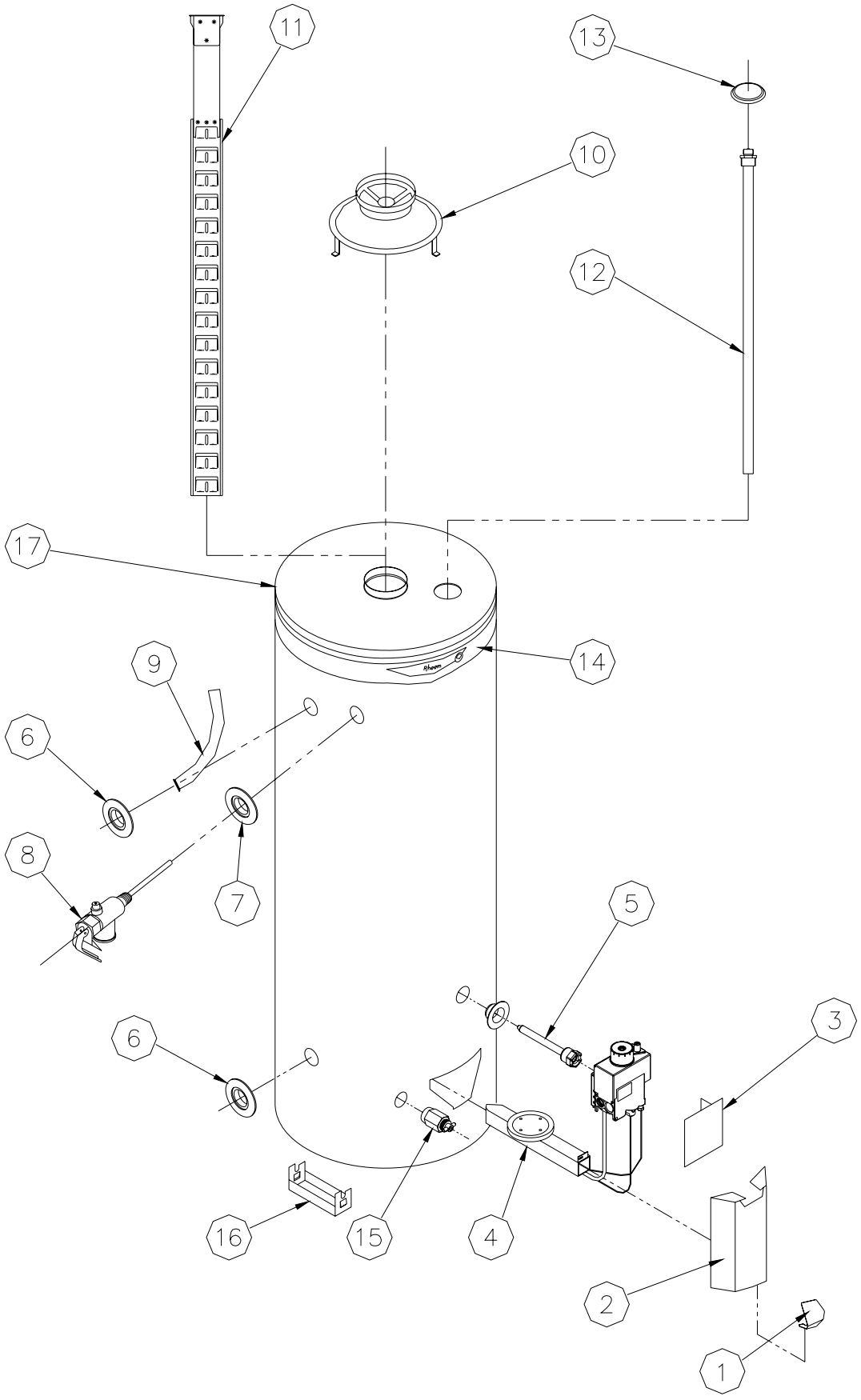
Exploded View – 620260 Indoor Heater



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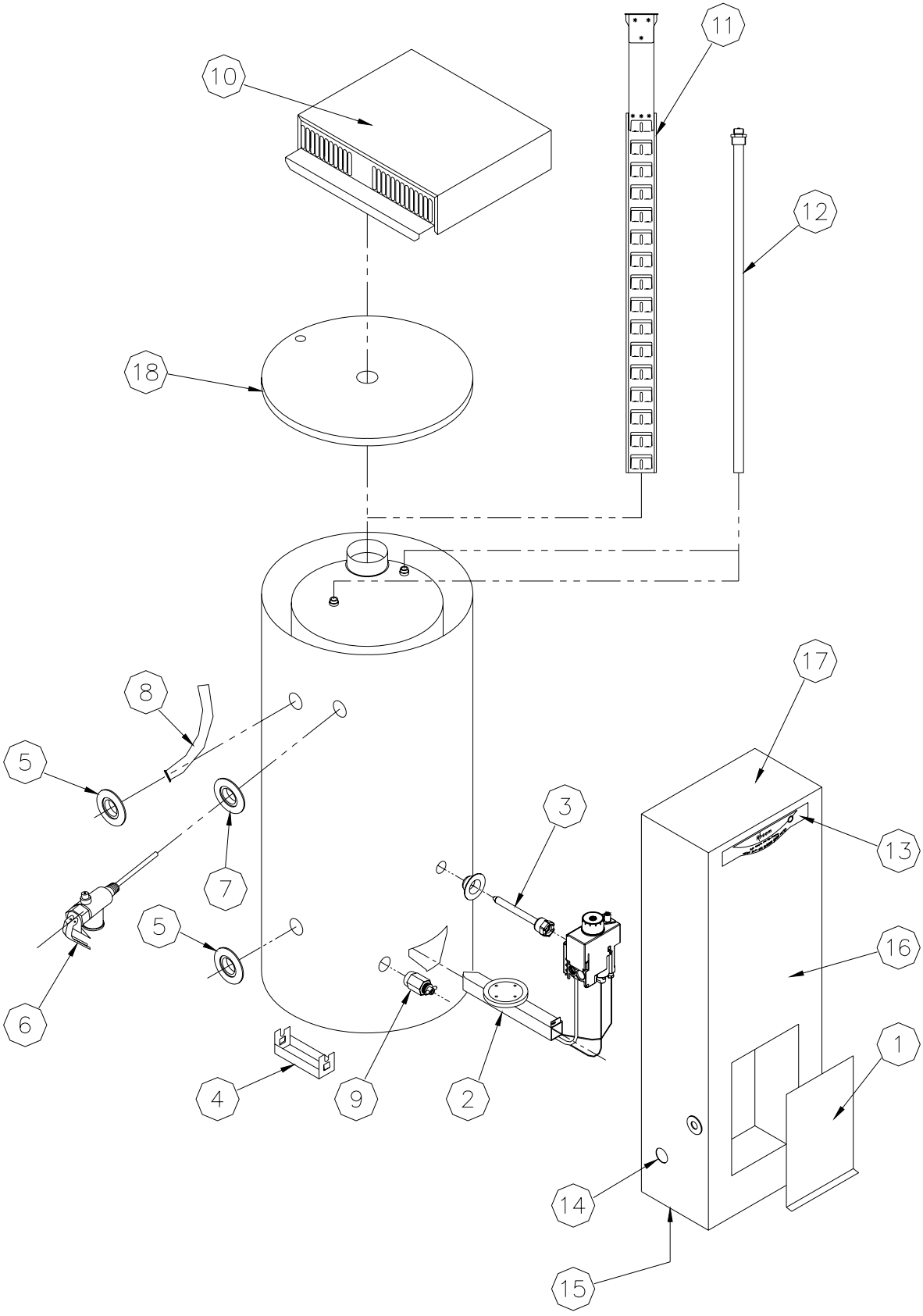
Exploded View – 630260 Outdoor Heater



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Replacement Parts List 620260

Item	Description	620260
1	Pilot viewing mirror	103805
2	Front cover - metal	101312-1
3	Front cover - plastic	226930
4	Burner Assembly	Refer to page 47
5	Adapter	079411
6	Pipe Seal – Inlet/Outlet	221406-1
7	Pipe Seal – T & PR valve	221398-1
8	T & PR valve	220604
9	Dip Tube	220511
10	Draught Diverter	102809-1
11	Baffle	071835
12	Anode – Black	221909
	Anode – Blue	221924
	Anode – Green	222014
13	Anode Cover	221391-1
14	Name Band	120627
15	Drain Cock	224813
16	Foot	101402
17	Jacket Top	101216-1

Replacement Parts List 630260

Item	Description	630260
1	Access door	104603-1
2	Burner assembly	Refer to page 47
3	Adapter	079411
4	Foot	101402
5	Pipe seal – Inlet/Outlet	221406-1
6	T & PR valve	220604
7	Pipe seal – T & PR	221398-1
8	Dip tube	220511
9	Drain cock	224813
10	Flue terminal	104727-1
11	Baffle	071836
12	Anode – Black	221909
	Anode – Blue	221924
	Anode - Green	222014
13	Name Band	120806
14	Grommet	080007
15	Air Duct Extension - Bottom	106702-1
16	Air Duct	106527-1
17	Air Duct Extension – Top	106529-1
18	Jacket Top	101219-1

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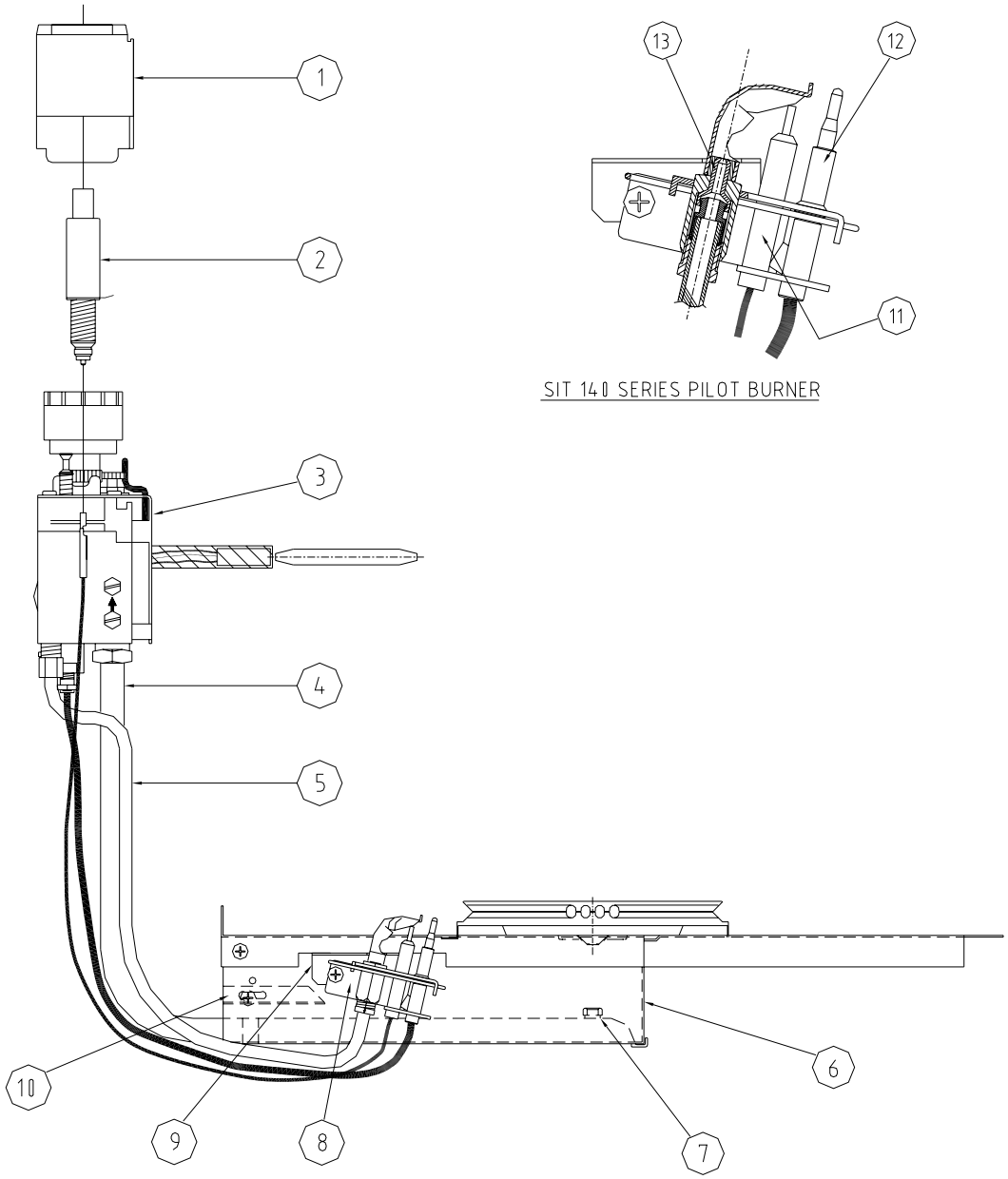
Exploded View – 620/630260 Gas Control and Burner Assembly



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Replacement Parts List - 620/630260 Gas Control and Burner Assembly

Item	Description	Indoor	Outdoor
1	Gas Control Cover	890176	890176
2	Piezo Igniter	890202	890202
3	Gas Control – Natural Gas	079421	079421
	Gas Control – Propane & Butane Gas	079424	079424
	Gas Control – TLP Gas	079422	079422
4	Burner Feed Pipe – Natural & TLP Gas	076401	076401
	Burner Feed Pipe – Propane & Butane Gas	076403	076403
5	Pilot Feed Pipe	071508	071508
6	Burner Assy – Natural Gas	070440	070447
	Burner Assy – Propane Gas	070445	070445
	Burner Assy – Butane Gas	070446	070446
	Burner Assy – TLP Gas	070444	070448
7	Main Burner Injector – Natural Gas	073345	073345
	Main Burner Injector – Propane Gas	073323	073323
	Main Burner Injector – Butane Gas	073354	073354
	Main Burner Injector – TLP Gas	073357	073357
8	Pilot Assy – Natural Gas	070960	070949
	Pilot Assy – Propane & Butane Gas	070955	070955
	Pilot Assy – TLP Gas	070962	070952
9	Pilot Draught Shield	076605	076605
10	Aeration Shutter (LP, Butane & TLP only)	071201	071201
11	Spark Plug And Lead	890175	890175
12	Thermocouple – Butane & Propane Gas	071428	071428
	Thermocouple – Natural & TLP Gas	071428	071427
13	Pilot Injector – Natural Gas	890181	890181
	Pilot Injector – Propane & Butane Gas	890197	890197
	Pilot Injector – TLP Gas	890198	890198
*	Burner Feed Pipe Clip	071303	071303

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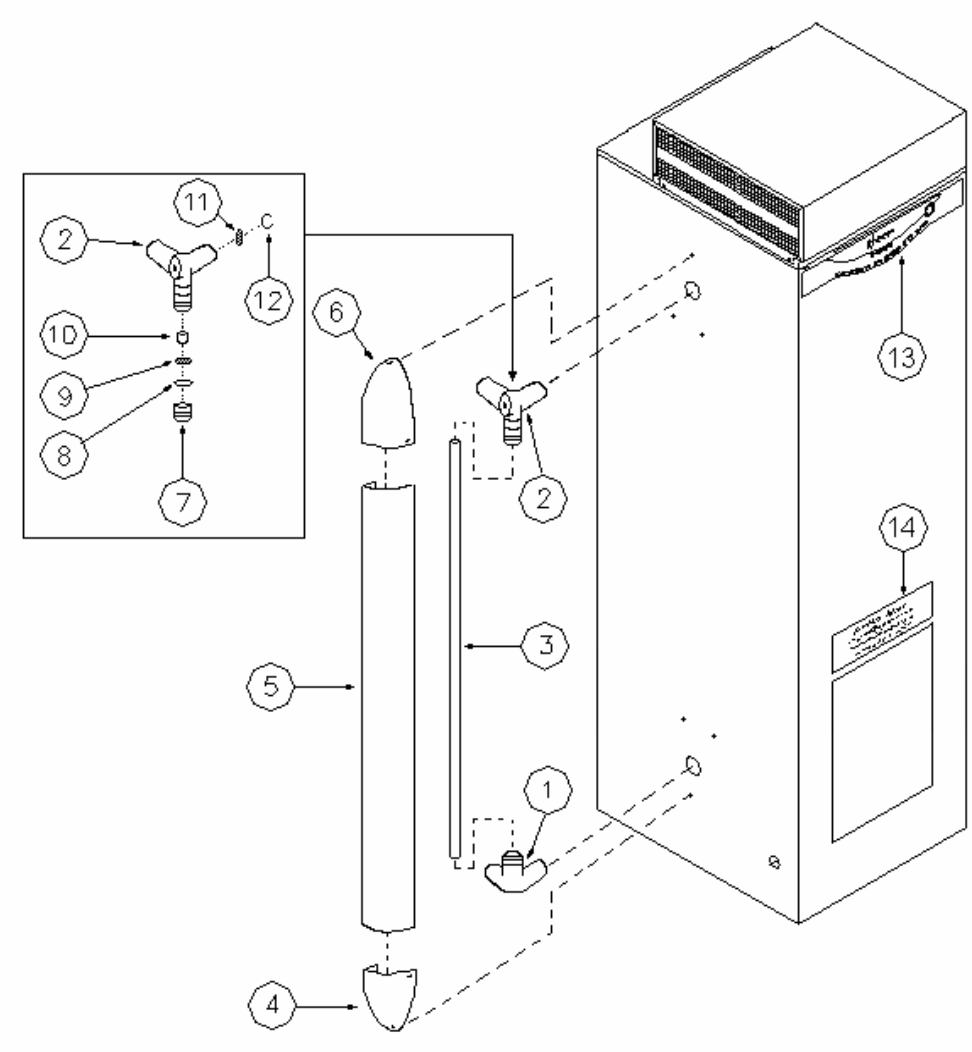
Exploded View & Parts List – Rheem Plus Components



Replacement Parts List

Item	Description	Part Number
1	Cold Connector	220602
2	Tempering Valve 50ºC	220601
3	Plastic Cold Pipe (135 litre)	220552
	Plastic Cold Pipe (170 litre)	220555
4	Duct Lower Cover & Insulation	103679
5	Duct & Insulation (135 litre)	103670
	Duct & Insulation (170 litre)	103671
6	Duct Top Cover & Insulation	103677
7	Quick Connect Fitting. Comes with item 2.	NA
8	Quick Connect O-ring	890357
9	Tempering Valve Cold Water Filter	890354
10	Tempering Valve Non-return Valve	890356
11	Tempering Valve Hot Water Filter	890354
12	Tempering Valve “C” Clip	890355
13	Name Band	120810
14	Label Tempering Valve Service	121231
	Cold Pipe Removal Tool (not shown)	890330

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Gas Type Conversion Procedure

The 620130 & 630130 are approved for Natural and LP gas types only. Conversions to Butane or TLP gas are illegal.

For <u>warehouse</u> gas type conversions the burner operation and gas tightness testing must be completed by dry firing the water heater or fully assembled burner/gas control assembly. Do NOT leave the main burner on for more than 30 seconds if dry firing. Where gas is unavailable for testing gas type conversions must NOT be conducted.

1. ***Isolate gas supply to the water heater.***
2. Remove the access cover (outdoor models) or the front metal cover and gas control plastic cover (indoor models).
3. Disconnect gas supply pipe and remove the union or elbow from the gas control.
4. Disconnect the following from the gas control -

    a. Piezo igniter lead.
    b. Pilot feed pipe.
    c. Thermocouple.
    d. Burner feed pipe.

5. Remove the holding screw from the burner mounting bracket.
6. Remove the burner assembly.
7. Remove the gas control top cover.
8. Remove the gas control from the sheath by releasing the spring clip.
9. Change pilot injector to suit gas type. ***Ensure gas tight joints***.
10. Change burner feed pipe and main burner injector to suit gas type. ***Ensure gas tight joints***.

NOTE: The burner-connecting pipe <u>MUST</u> be changed from a fully rounded type suitable for Natural or TLP Gas to a partially flattened type when converting to LP or Butane Gas. The reverse applies when converting from LP or Butane Gas to Natural or TLP Gas.

11. Fit primary aeration shutter when converting to Propane, Butane or TLP gas, remove the primary aeration shutter or open fully if converting to Natural gas.
12. Refit burner assembly ***ensuring joints are gas tight***.
13. Fit replacement gas control and lock into place on the sheath.
14. Refit the gas control top cover.
15. Reconnect the following to the gas control –

    a. Piezo igniter lead.
    b. Pilot feed pipe.
    c. Thermocouple.
    d. Burner feed pipe.

15. Reconnect gas supply line. ***Ensure gas tight joint***.
16. Restore the gas supply.
17. Light pilot. ***Ensure lighting instructions, provided on the access door (outdoor models) or the front of the water heater (indoor models), are carefully followed.***
18. Test operation of main burner.
19. ***Test for gas leaks using soapy water solution.***
20. ***Fit manometer and check burner gas pressure.***
21. Check flame quality and if necessary adjust aeration shutter. On LP & Butane Gas the normal position is fully open, on TLP gas the normal position is 10mm open).
22. ***Change rating label details and fit new gas type labels.***
23. Refit access cover (outdoor models) or the front metal cover and gas control plastic cover (indoor models).

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Conversion Tables 300, 311, 314 & 811 Series – Components Required

90L - Natural to LP		
Component		Part Number
Gas Control LP Red (60°)		079424
Burner Feed Pipe	Indoor	070800
	Outdoor	070858
Pilot Injector		890197
Burner Injector	Indoor	073355
	Outdoor	073352
Aeration Shutter		071201
Gas Type Label - Propane		121805

90L - Natural to TLP		
Component		Part Number
Gas Control TWN Blue (60°)		079422
Burner Injector	Indoor	073342
	Outdoor	073347
Aeration Shutter		071201
Pilot Injector		890198
Gas Type Label - Towns		121801

135L - Natural to LP		
Component		Part Number
Gas Control LP Red (60°)		079424
Burner Feed Pipe	Indoor	070800
	Outdoor	070858
Pilot Injector		890197
Burner Injector	Indoor	073352
	Outdoor	073370
Aeration Shutter		071201
Gas Type Label - Propane		121805

135L - Natural to TLP		
Component		Part Number
Gas Control TWN Blue (60°)		079422
Burner Injector	Indoor	073338
	Outdoor	073340
Aeration Shutter		071201
Pilot Injector		890198
Gas Type Label - Towns		121801

170L - Natural to LP		
Component		Part Number
Gas Control LP Red (60°)		079424
Burner Feed Pipe	Indoor	070800
	Outdoor	070858
Pilot Injector		890197
Burner Injector	Indoor	073352
	Outdoor	073320
Aeration Shutter		071201
Gas Type Label - Propane		121805

170L - Natural to TLP		
Component		Part Number
Gas Control TWN Blue (60°)		079422
Burner Injector	Indoor	073338
	Outdoor	073361
Aeration Shutter		071201
Pilot Injector		890198
Gas Type Label - Towns		121801

90L - LP to Natural		
Component		Part Number
Gas Control NAT Black (60°)		079421
Burner Feed Pipe	Indoor	070801
	Outdoor	070859
Pilot Injector		890181
Burner Injector	Indoor	073325
	Outdoor	073327
Gas Type Label - Natural		121802

90L - LP to Butane		
Component		Part Number
Burner Injector	Indoor	073351
	Outdoor	073368
Gas Type Label - Butane		121804

135L - LP to Natural		
Component		Part Number
Gas Control NAT Black (60°)		079421
Burner Feed Pipe	Indoor	070801
	Outdoor	070859
Pilot Injector		890181
Burner Injector	Indoor	073327
	Outdoor	073328
Gas Type Label - Natural		121802

135L - LP to Butane		
Component		Part Number
Burner Injector	Indoor	073351
	Outdoor	073368
Gas Type Label - Butane		121804

170L - LP to Natural		
Component		Part Number
Gas Control NAT Black (60°)		079421
Burner Feed Pipe	Indoor	070801
	Outdoor	070859
Pilot Injector		890181
Burner Injector	Indoor	073327
	Outdoor	073336
Gas Type Label - Natural		121802

170L - LP to Butane		
Component		Part Number
Burner Injector	Indoor	073351
	Outdoor	073368
Gas Type Label - Butane		121804

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Conversion Tables 620 & 630 Series – Components Required

620130 & 630130 - Natural to LP		
Component		Part Number
Gas Control LP Red (80°)		079429
Burner Feed Pipe	620130	070800
	630130	070858
Pilot Injector		890197
Burner Injector	620130	073352
	630130	073370
Aeration Shutter		071201
Gas Type Label - Propane		121805

620130 & 630130 - LP to Natural		
Component		Part Number
Gas Control NAT Blk (80°)		079428
Burner Feed Pipe	620130	070801
	630130	070859
Pilot Injector		890181
Burner Injector	620130	073327
	630130	073328
Gas Type Label		121802

620260 - Natural to LP	
Component	Part Number
Gas Control LP Red (60°)	079424
Burner Feed Pipe	076403
Pilot Injector	890197
Burner Injector	073323
Aeration Shutter	071201
Gas Type Label - Propane	121805

620260 - LP to Natural	
Component	Part Number
Gas Control NAT Blk (60°)	079421
Burner Feed Pipe	076401
Pilot Injector	890181
Burner Injector	073345
Gas Type Label - Natural	121802

620260 - Natural to TLP	
Component	Part Number
Gas Control TWN Blue (60°)	079422
Burner Injector	073357
Aeration Shutter	071201
Pilot Injector	890198
Gas Type Label - Towns	121801

620260 - LP to Butane	
Component	Part Number
Burner Injector	073354
Gas Type Label - Butane	121804

630260 - Natural to LP	
Component	Part Number
Gas Control LP Red (60°)	079424
Burner Feed Pipe	076403
Pilot Assembly*	070955
Burner Injector	073323
Aeration Shutter	071201
Gas Type Label - Propane	121805

630260 - LP to Natural	
Component	Part Number
Gas Control NAT Blk (60°)	079421
Burner Feed Pipe	076401
Pilot Injector	890181
Burner Injector	073345
Gas Type Label - Natural	121802

630260 - Natural to TLP	
Component	Part Number
Gas Control TWN Blue (60°)	079422
Main Burner Injector	073357
Aeration Shutter	071201
Pilot Injector	890198
Gas Type Label - Towns	121801

630260 - LP to Butane	
Component	Part Number
Main Burner Injector	073354
Gas Type Label - Butane	121804

*When converting a 630260 outdoor heater from natural gas to LP gas the pilot assembly is required due to the difference in size between a TS and non TS thermocouple.

Refer to the step 21 of the 'Gas Type Conversion Procedure' on page 50 for aeration shutter settings.

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Rheem Mains Pressure Water Heater Warranty – Australia Only

WARRANTY CONDITIONS

1. This warranty is applicable only to Rheem water heaters manufactured from 1st November 2004.
2. The water heater must be installed in accordance with the Rheem water heater installation instructions, supplied with the water heater, and in accordance with all relevant statutory and local requirements of the State in which the water heater is to be installed.
3. Where a failed component or water heater is replaced under Warranty, the balance of the original period will remain effective. The replaced part or water heater does not carry a new warranty.
4. Where the water heater is installed outside the boundaries of a metropolitan area as defined by Rheem Australia or further than 25 km from a regional Rheem Australia branch office, or an Accredited Service Agent, the cost of transport, insurance and travelling costs between the nearest Rheem Australia Accredited Service Agent's premises and the installed site shall be the owner's responsibility.
5. Where the water heater is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and/or safety equipment, shall be the owners responsibility.
6. The warranty only applies to the water heater and original or genuine (company) component replacement parts and therefore does not cover any plumbing or electrical parts supplied by the installer and not an integral part of the water heater, e.g. pressure limiting valve; isolation valves; non-return valves; electrical switches; pumps or fuse.
7. The water heater must be sized to supply the hot water demand in accordance with the guidelines in the Rheem water heater literature.

WARRANTY EXCLUSIONS

1. REPAIR AND REPLACEMENT WORK WILL BE CARRIED OUT AS SET OUT IN THE RHEEM WATER HEATER WARRANTY, HOWEVER THE FOLLOWING EXCLUSIONS MAY CAUSE THE WATER HEATER WARRANTY TO BECOME VOID AND MAY INCUR A SERVICE CHARGE AND/OR COST OF PARTS.
   a) Accidental damage to the water heater or component including: Acts of God; failure due to misuse; incorrect installation; attempts to repair the water heater other than by a Rheem Australia Accredited Service Agent or the Rheem Service Department.
   b) Where it is found there is nothing wrong with the water heater; where the complaint is related to excessive discharge from the temperature and/or pressure relief valve due to high water pressure; where there is no flow of hot water due to faulty plumbing; where water leaks are related to plumbing and not the water heater components; where there is a failure of gas, electricity or water supplies; where the supply of gas, electricity or water does not comply with relevant codes or acts.
   c) Where the water heater or water heater component has failed directly or indirectly as a result of: excessive water pressure; excessive temperature and/or thermal input; blocked overflow/vent drain; corrosive atmosphere; ice formation in the pipework to or from the water heater.
   d) Where the solar water heater or solar water heater component has failed directly or indirectly as a result of ice formation in the waterways of a solar water heater system: without a freeze protection system; with a freeze protection system where the electricity supply has been switched off or has failed; (Hiline) installed at an altitude more than 600 metres above sea level; (Loline) installed at an altitude more than 800 metres above sea level; where the system has not been installed in accordance with the water heater installation instructions.
   e) Where the water heater is located in a position that does not comply with the Rheem water heater installation instructions or relevant statutory requirements, causing the need for major dismantling or removal of cupboards, doors or walls, or use of special equipment to bring the water heater to floor or ground level or to a serviceable position.
   f) Repair and/or replacement of the water heater due to scale formation in the waterways or the effects of corrosive water when the water heater has been connected to a harmful water supply as outlined in the Owner's Guide and Installation Instructions booklet.
   g) Breakage of collector glass for any reason including hail damage (we suggest that the collector glass be covered by your home insurance policy).
2. SUBJECT TO ANY STATUTORY PROVISIONS TO THE CONTRARY, THIS WARRANTY EXCLUDES ANY AND ALL CLAIMS FOR DAMAGE TO FURNITURE, CARPETS, WALLS, FOUNDATIONS OR ANY OTHER CONSEQUENTIAL LOSS EITHER DIRECTLY OR INDIRECTLY DUE TO LEAKAGE FROM THE WATER HEATER, OR DUE TO LEAKAGE FROM FITTINGS AND/OR PIPE WORK OF METAL, PLASTIC OR OTHER MATERIALS CAUSED BY WATER TEMPERATURE, WORKMANSHIP OR OTHER MODES OF FAILURE.

In addition to this warranty, the Trade Practices Act 1974 and similar laws in each state and territory provide the owner under certain circumstances with certain minimum statutory rights in relation to your Rheem water heater. This warranty must be read subject to that legislation and nothing in this warranty has the effect of excluding or restricting those rights.

RHEEM AUSTRALIA
RHEEM AUSTRALIA PTY. LTD.
A.B.N 72 004 213 665

FOR SERVICE TELEPHONE
131 031 AUSTRALIA
or refer local Yellow Pages

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Document Revision History

Title:	Rheem Gas Permanent Pilot Water Heaters	Document Number:	TM016

Revision	Details of change	D.O.I.
A	Service Instructions issued for Permanent Pilot Gas Models	05/02
B	Format update. Addition of Rheem Plus models.	11/05
C	Gas conversion parts corrected for towns gas	01/06

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